ISSN 0300-9580

Journal of The Chemical Society

Perkin Transactions II

Indexes

1981

JOURNAL
OF
THE CHEMICAL SOCIETY

PERKIN TRANSACTIONS II
Physical Organic Chemistry

LONDON: THE ROYAL SOCIETY OF CHEMISTRY
1981

COPYRIGHT RESERVED

Printed in Great Britain by
Richard Clay (The Chaucer Press), Ltd.,
Bungay, Suffolk

AUTHOR INDEX, 1981

Abdel Aziz, M. A., 344–9
Abe, Kazuhisa, 652–5
Acheson, R. Morrin, 266–9
Agirbas, Hikmet, 1121–6
Al Akeel, Nageh Y., 1036–42
AlAruri, Ahmad D. A., 807–11
Alberti, Angelo, 1274–9
Albery, W. John, 794–800, 825–9
Aldred, S. Elaine, 1021–4
Al-Omran, Fatima, 518–25
Anderson, J. Edgar, 741–6
Andreou, Andreas D., 376–8, 830–7
Anoardi, Lucio, 260–5
Archer, William J., 675–83, 1153–6
Arcoria, Antonino, 221–7
Arjona, Odon, 597–603
Arnone, Caterina, 388–92, 642–4
Arumi, Monserrat, 708–12
Askari, Massoud, 1538–43
Aslam, M. Hanif, 500–8, 720–4, 1572–6
Asmus, Klaus Dieter, 890–5
Atkins, Paul J., 113–20
Atkinson, Robert S., 509–13
Atwood, Jerry L., 331–5
Awwal, Abdul, 1566–71
Azoulay, Michel, 256–9
Baban, Jehan A., 161–6
Bahari, Mohd S., 49–52
Bahnemann, Detlef, 890–5
Baillie, Philip J., 842–7
Balan, Ayala, 350–2
Ballistreri, Francesco P., 221–7, 438–41
Bamkole, Titus O., 1201–5
Bandy, Judith A., 1025–30
Banjoko, Olayinka, 399–402, 1105–7
Banks, Ronald E., 975–9
Bartlett, Philip N., 794–800
Bastard, J., 1591–5
Becker, Hans-Dieter, 442–6
Becker, James Y., 336–40
Beckhaus, Hans Dieter, 1076–83
Behrens, Guenter, 143–54
Bellamy, Anthony J., 1093–8, 1099–104
Bellanato, Juana, 561–70
Bellucci, Giuseppe, 1336–40
Benassi, Rois, 228–32
Benati, Luisa, 1437–42
Bergsma, John P., 713–19
Bernal, Ivan, 1621–8
Berthelot, Michel, 1206–10
Berti, Giancarlo, 1336–40
Bertran, Juan, 708–12
Bethell, Donald, 684–91
Bianchini, Roberto, 1336–40
Billingham, Norman C., 1121–6
Bishop, David I., 725–9
Blandamer, Michael J., 447–56, 1157–60
Boekelheide, Virgil, 1298–303
Bolton, Roger, 1109–20
Bongini, Alessandro, 201–6
Bonningue, Corine, 19–25
Bothe, Eberhard, 143–54
Bougeard, Peter, 393–8
Bowen, Richard D., 958–66, 1544–53
Bowmaker, Graham A., 1015–20
Brindley, Peter B., 419–23
Brittain, Judith M., 32–41, 1629–32
Britton, H. G., 494–9
Bromilow, John, 753–9
Brooke, David N., 526–32
Brown, Keith C., 886–9
Brownlee, Robert T. C., 753–9, 760–4
Buck, Henk M., 457–63
Bulbulian, Roger V., 376–8, 830–7
Bunce, Nigel J., 713–19
Bunton, Clifford A., 924–30
Burden, Alan G., 500–8
Burgess, John, 366–8, 1157–60
Burt, Richard, 1566–71
Butler, Anthony R., 310–16, 317–19, 320–3
Butler, Richard N., 1243–6
Buttafava, A., 425–31
Cafferata, Lazaro F. R., 940–3
Calvert, David, 1015–20
Calvino, Rosella, 1240–2
Cameron, A. Forbes, 789–93
Cameron, Donald W., 610–27
Cameron, Ian R., 789–93
Cantone, Alfio, 438–41
Caporiccio, G., 425–31
Carlsen, Lars, 1166–70, 1256–9
Carnovale, Frank, 991–4
Carrasco, Nelson, 924–30
Cauletti, Carla, 656–9
Causey, J. Guy, 1143–7
Cazaux, Louis, 1554–7
Cerioni, Giovanni, 1449–53
Cevasco, Giorgio, 327–30
Chapman, Norman B., 500–8, 720–4
Charton, Marvin, 500–8, 720–4
Chenon, Marie-Therese, 783–8
Chippendale, A. Margaret, 1031–5
Chishti, Najmul H., 53–7
Clack, Denis W., 860–5
Collier, Geoffrey, 1572–6
Colonna, Francesco P., 281–5
Colonna, Martino, 628–32
Compton, Richard G., 825–9
Consiglio, Giovanni, 388–92, 642–4, 1325–8
Cookson, Richard C., 774–82
Corbett, John F., 886–9
Corfield, George C., 526–32
Corrao, Antonino, 1325–8
Corti, C., 425–31
Coupry, Claude, 783–8
Courtot, Pierre, 219
Cowley, David J., 918–23
Cox, Brian G., 1351–7, 1486–91
Coxon, James M., 379–81
Craig, J. Cymerman, 697–8
Craik, David J., 753–9, 760–4
Crampton, Michael R., 526–32, 533–9, 807–11
Craze, Gabrielle Anne, 175–84
Cremer, Sheldon E., 1000–4, 1138–42
Croft, Kevin D., 1473–80
Cullen, David L., 1525–8
Curtin, David Y., 1577–82, 1583–90
Curzon, Eirian H., 494–9
Cutbush, Shirley D., 980–4
Dailly, Bryce N., 1109–20
Darcy, Raphael, 1089–92
Darnauer, Stephen M., 233–8
Darwish, S., 344–9
David, Shantha K., 1367–73
Davies, Alwyn G., 369–75, 633–41, 692–6, 747–50, 1132–7, 1512–19
Davies, David B., 82–9
Davis, Beverly M., 58–61
Davison, Bruce E., 468–72
Davoudzadeh, Faegh, 924–30
De Bie, Dick A., 1005–9
Dedeoglu, Erol, 1358–66
De Graaff, Rudolf A. G., 478–80
De Haan, Jan W., 457–63
De Jonge, Cornelis R. H. I., 1234–6, 1237–9
De la Mare, Peter B. D., 32–41, 42–8, 1015–20, 1629–32
Dell'Erba, Carlo, 327–30
Delpuech, Jean J., 1329–35
De Maria, Paolo, 1351–7
De Moira, Peter Pinot, 1221–9
Demontis, Pierfranco, 488–93
Deniau, Jean, 393–8
De Silva, A. Prasanna, 1010–14
Desvard, Osvaldo E., 940–3
Dezube, Bruce, 730–5
Dickinson, Charles, 353–5
Dincturk, Suphi, 1121–6, 1127–31
Distefano, Giuseppe, 281–5
Dobson, Christopher M., 730–5
Dodin, Guy, 1057–61
Dorie, Jean, 912–17
Douglas, Kenneth T., 171–4
Draper, Mark R., 94–9
Drew, Michael G. B., 155–60, 1454–8
D'Rozario, A. Peter, 590–6
Dubois, Jacques Emile, 1057–61
Duce, Phillip P., 1157–60
Duesler, Eileen N., 1577–82
Duncanson, Fergus D., 789–93
Dunning, James W., Jr., 1171–5
Duong, Kiem N. V., 393–8
Dutly, Andreas, 1358–66
Eaborn, Colin, 931–4, 1043–50, 1051–6, 1309–15
Eckert-Maksic, Mirjana, 62–4, 1462–6
Edlund, Ulf, 403–8, 1260–3
Egsgaard, Helge, 1166–70, 1256–9
Eliasson, Bertil, 403–8, 1260–3
Ellison, Gwenda, 699–702
El Maghraby, A. A., 344–9
Emokpae, Thomas A., 883–5
Emsley, James W., 540–4
Ercoli, Roberta, 488–93
Errede, Lou A., 233–8
Etter, Margaret C., 233–8
Eyring, Edward M., 765–9
Fahmy, H. M., 344–9
Falk, Heinz, 1525–8
Faucitano, A., 425–31
Faucitano Martinotti, F., 425–31
Fazakerley, G. Victor, 494–9
Feeney, James, 201–6
Fetizon, M., 1591–5
Feutrill, Geoffrey I., 610–27
Fini, Adamo, 1351–7
Fiorenza, Mariella, 1043–50
Firman, Paul, 1486–91
Fischer, Ernst, 1264–6
Fischer, Gabriella, 1264–6
Fischer, Hans, 896–900
Fiske, Peter R., 753–9
Folli, Ugo, 228–32
Fornasier, Roberto, 260–5
Foulds, Andrew W., 794–800
Fraisse, D., 1591–5
Frenna, Vincenzo, 388–92, 1325–8
Fronczek, Frank R., 331–5, 877–82
Fujimoto, Hiroshi, 670–4
Fujiwara, Kenji, 518–25
Fuller, Steven E., 545–52
Furukawa, Naomichi, 432–7
Furuta, Kyoji, 110–12
Galasso, Vinicio, 127–31, 281–5
Galli, Carlo, 1459–61
Gamba, Aldo, 488–93
Gan, Tiang-Hong, 991–4
Gasco, Alberto, 1240–2
Gaston, John L., 980–4
Gaudemer, Alain, 393–8
Gerson, Fabian, 1298–303
Geurtsen, Bart, 1005–9
Ghebre-Sellassie, Isaac, 1247–51
Ghisalberti, Emilio L., 576–82, 583–9, 1473–80
Giancaspro, Carlo, 656–9
Gibbs, Hugh W., 848–51
Gibson, Brenda, 533–9
Gibson, Harry W., 1267–73
Giffney, Janet C., 518–25
Gilbert, Bruce C., 207–18, 379–81, 1066–9, 1186–99, 1392–400, 1401–5
Giles, Jeremy R. M., 747–50, 1211–20
Gillet, Brigitte, 1329–35
Godfrey, Martin, 645–51
Godreau, Paul V., 140–2
Gold, Victor, 812–16, 1230–3
Golding, Peter, 526–32
Gomez-Sanchez, Antonio, 561–70
Goodman, Paul D., 1221–9
Gore, Peter H., 58–61, 376–8, 830–7
Gorter, Sybout, 478–80
Gottarelli, Giovanni, 1529–33
Gottlieb, Hugo E., 350–2
Gouesnard, Jean Paul, 912–17
Gould, Robert O., 1099–104
Graham, Laurine LaPlanche, 1481–5
Graham, Richard C., 765–9
Gray, George W., 26–31
Greci, Lucedio, 628–32
Gregoriou, George A., 985–90
Greig, Derek J., 590–6
Griller, David, 633–41
Grim, Michael D., 1171–5
Grimshaw, James, 1010–14
Grossi, Loris, 703–7
Grubmayr, Karl, 1525–8
Guanti, Giuseppe, 327–30
Guilleme, Jean, 1341–3
Guillerez, Jean, 1057–61
Guthrie, R. D., 468–72

Hageman, Hendrik J., 1234–6, 1237–9
Hall, C. Dennis, 113–20
Hall, Sydney R., 1467–72
Hallas, Geoffrey, 1292–4
Hamamoto, Kazuhiro, 1596–8
Hanaya, Kaoru, 944–7
Hanson, Ian R., 1–11, 1606–15
Hanson, Peter, 1492–500
Hare, Gerard J., 684–91
Hargis, J. Howard, 1411–16
Harlow, Richard L., 303–9
Harpp, David N., 1166–70
Harris, Margaret M., 1621–8
Harris, Robin K., 1031–5
Harrison, Alex G., 1544–53
Harun, M. Ghazali, 78–81
Hassan, Abdi Farah, 1351–7
Hawari, Jalal A. A., 1132–7
Hawkes, Geoffrey E., 494–9
Hayes, Gerard F., 526–32
Heatley, Frank, 725–9
Heffernan, James G., 514–17
Heller, Harry G., 341–3
Hem, Stanley L., 1247–51
Henderson, Gary H., 765–9
Henrick, Kim, 468–72
Henrie, Robert N., 1005–9
Hepworth, John D., 1292–4
Hester, Ronald E., 852–9
Hibbert, Frank, 1304–8, 1562–5
Higgins, Raymond, 545–52
Hirakubo, Kazuko, 1109–20
Hirano, Masao, 817–20
Hirota, Minoru, 652–5
Hirota, Reiko, 652–5
Hirst, Jack, 883–5, 1201–5
Holm, Torkil, 464–7
Holmes, Andrew B., 991–4
Hooper, Donald L., 1161–5M.
Hori, Akira, 1525–8
Horne, William, 1000–4, 1138–42
Houalla, Douraid, 19–25
Hudson, Andrew, 1274–9
Hudson, Robert F., 590–6
Humffray, Alan A., 382–7
Hunte, Kenneth P. P., 1562–5
Hunter, William E., 331–5
Hussain, Ishtiaq, 310–16, 317–19 320–3
Iarossi, Dario, 228–32
Ibbitson, Douglas A., 1292–4
Ikegami, Yusaku, 944–7
Imaizumi, Shin, 90–3
Imberger, Helmut E., 382–7
Ingold, Keith U., 633–41, 970–4
Ingrosso, Giovanni, 1336–40
Irgolic, Kurt J., 281–5
Irvine, Robert W., 468–72
Isaksson, Roland, 1344–50
Isham, William J., 1492–500
Ishiyama, Jun-ichi, 90–3
Jackson, Anthony H., 286–97
Jackson, Richard A., 1121–6, 1127–31
Jaud, Joel, 1554–7
Jedral, Wojciech, 1486–91
Jefferies, Philip R., 576–82, 583–9
Jefferies, Phillip R., 1473–80
Jennings, W. Brian, 1411–16
Joergensen, Flemming S., 741–6
Johnson, C. David, 409–13
Johnson, Michael D., 393–8
Jones, Alan M., 1292–4
Jorge, Jorge Armando Luis, 100–3
Joule, John A., 725–9
Judkins, Brian D., 509–13
Kafarski, Pawel K., 1138–42
Kalatzis, Evangelos, 239–47, 248–55
Kamlet, Mortimer J., 353–5
Kamounah, Fadhil S., 376–8
Kanjia, D. Magan, 975–9
Kaplan, Doron, 1374–83
Karimian, Khashayar, 1538–43
Kashefi-Naini, Nasrin, 65–71, 78–81
Kato, Hiroshi, 110–12
Katritzky, Alan R., 571–5
Keane, Terence P., 1292–4
Kearney, Paul A., 684–91
Kelly, Stephen M., 26–31
Kemp, Terence J., 1221–9
Kennedy, John D., 369–75
Kerr, Ian S., 825–9
Kessler, David P., 1247–51
Kevill, Dennis N., 49–52
Khait, Igor, 1417–29
Khalil-Ur-Rahman, 1105–7
Khan, Nadir, 860–5
Khudyakov, I. V., 1234–6, 1237–9
Kihara, Kei'ichi, 356–60
Kimura, Yoshihiro, 670–4
King, David M., 1186–99
Kirschleger, Bernard, 1341–3
Kiwan, A. Mageed, 1534–7
Kiyan, Nilo Zengo, 100–3
Klasinc, Leo, 127–31
Kleibeuker, Joop F., 1005–9
Knevel, Adelbert M., 1247–51
Knierzinger, Andreas, 1443–8
Knipe, Anthony C., 193–200
Koehorst, Rob B. M., 1005–9
Kogane, Tamizo, 652–5
Koltzenburg, Guenther, 143–54
Kondo, Yasuhiko, 414–18
Korp, James D., 1621–8
Kosbahn, Wolfgang, 270–80
Kowalewski, Jozef, 1260–3
Koyama, Kikuhiko, 121–6
Kremer, Paul W., 1138–42
Kresge, A. Jenny, 1566–71
Kubota, Yasuhiro, 670–4
Kudo, Hideaki, 944–7
Kunze, Michael, 1076–83
Kuroda, Reiko, 167–70, 870–6
Kurosaki, Takeshi, 670–4
Kusabayashi, Shigekazu, 414–18
Kuz'min, V. A., 1234–6, 1237–9
Ladd, Mark F. C., 369–75
Lalart, Denis, 1057–61
Lamb, John D., 1025–30
Landini, Dario, 821–4
Langan, John R., 341–3
Laurence, Christian, 1206–10, 1341–3
Lee, Kong Hung, 1109–20
Le Saint, Jacques, 219
Levin, P. P., Jr., 1234–6, 1237–9
Lewis, Edward S., 1084–8
Lewis Robin J., 1492–500
Liguori, Angelo, 540–4
Liljefors, Tommy, 1344–50
Lin, Gloria Meichia L., 49–52
Lindsay, David A., 633–41
Lindsay Smith, John R., 545–52
Lippman, Richard, 256–9
Liu, Michael T. H., 53–7
Lloyd, Douglas, 801–6
Lloyd, Roger V., 1143–7
Longeri, Marcello, 540–4
Lopez, Javier, 1298–303
Lott, Kenneth A. K., 58–61
Lucon, Maryvonne, 1206–10
Luedersdorf, Reinhard, 1417–29
Lunazzi, Lodovico, 604–9, 703–7 1449–53
Lusztyk, Janusz, 692–6, 747–50
McAdoo, David J., 770–3
Maccarone, Emanuele, 324–6, 438–41
Macciantelli, Dante, 604–9, 1449–53
Maccioni, Antonio, 1274–9
McFarlane, William, 369–75
McGuinness, Samuel J., 193–200
McKellar, Bernice C. J., 42–8, 1015–20
MacKenzie, William M., 514–17
McKeown, Robert H., 481–7
MacKirdy, Iain S., 1093–8
McLennan, Duncan J., 1316–24
McNab, Hamish, 1283–6, 1287–91
Mah, Talat, 812–16
Mahmoud, Foad M. S., 1309–15
Maia, Angelamaria, 821–4
Maillard, Bernard, 970–4
Main, Lyndsay, 848–51, 1367–73
Majestic, Veronica K., 331–5
Maksic, Zvonimir B., 1462–6
Mamo, Antonino, 324–6
Manabe, Osamu, 298–302, 1596–8
Mangani, Stefano, 1525–8
Manglik, Ajay K., 1358–66
Manh, D. Do Khac, 1591–5
Mann, Barbara J., 1577–82, 1583–90
Manzo, Ruben H., 571–5
March, Gary, 1121–6
Mariani, Paolo, 1529–33
Marongiu, Giaime, 1449–53
Marshall, P. David R., 1392–400
Martin, Hans Dieter, 1076–83
Martin, Maryvonne L., 912–17
Maruthamuthu, Pichai, 1280–2
Marziano, Nunziata C., 1070–5
Masci, Bernardo, 1252–5
Mason, Joan, 975–9
Mason, Stephen F., 167–70, 870–6
Masui, Masaichiro, 1599–605
Mathias, Alan, 1031–5
Mazhar-ul-Haque, 1138–42
Mazhur-ul-Haque, 1000–4
Mervis, Cynthia M., 171–4
Meyer, Edgar F., Jr., 1525–8
Meyer, Thomas A., 361–5
Miller, Joseph, 100–3
Miri, Adhid Y., 376–8
Mishra, Shuddhodan Prasad, 185–92
Miyata, Yukino, 100–3
Mohtarami, Fatemeh, 1538–43
Monaci, Anna, 656–9
Montanari, Fernando, 821–4
Montevecchi, Pier Carlo, 1437–42
Moodie, Roy B., 664–9, 842–7, 848–51, 1358–66
More O'Ferrall, Rory A., 1084–8
Morimoto, Takashi, 817–20
Morita, Hiroyuki, 432–7
Moroni, Antonio, 1336–40
Morris, David G., 1206–10
Morris, Donald F. C., 830–7
Morris, Gerard J., 1243–6
Morrison, James D., 838–41, 967–9
Most, James T., 1000–4
Muggleton, Brenda, 1132–7
Musumarra, Giuseppe, 221–7
Muszkat, Karol A., 1417–29
Nakamura, Kouji, 817–20
Navon, Gil, 1374–83
Neidle, Stephen, 980–4
Neugebauer, Franz A., 896–900
Newkome, George R., 331–5, 877–82
Newman, Paul A., 32–41
Nicholas, Everton S., 140–2
Nicole, Daniel J., 1329–35
Nobusue, Yasuhiro, 1599–605
Nonaka, Yuji, 356–60
Norman, Richard O. C., 207–18, 379–81, 545–52, 1066–9, 1392–400, 1401–5
Noto, Renato, 388–92, 642–4
Nudelman, N. Sbarbati, 995–9
Nwaedozie, Jonathan M., 883–5
Nyman, Roger, 901–4
Oae, Shigeru, 432–7
Oddershede, Jens, 1062–5
O'Donohue, Anne M., 1243–6
Oftring, Alfred, 1076–83
Ogata, Yoshiro, 110–12
Ohmori, Hidenobu, 1599–605
Ohnsorge, Ulrich F. W., 697–8
Okamoto, Kunio, 670–4
Old, K. Barry, 1367–73
Olin, George R., 1267–73
Onodera, Shinji, 944–7
Onyido, Ikenna, 1201–5
Osman, Fayez H., 19–25
Otiono, Paul, 399–402
Owen, John D., 12–18, 1606–15
Oyama, Kiyotaka, 356–60
Packer, Kenneth J., 1031–5
Pagsberg, Palle, 1256–9
Palleros, Daniel, 995–9
Palling, David J., 113–20
Palmer, Glenn E., 53–7
Palmieri, Paolo, 1529–33
Pannan, Linda J. H., 610–27
Papadopoulos, Panayiotis, 239–47, 248–55
Pappalardo, Giuseppe C., 127–31, 281–5
Pardini, Vera L., 1520–3
Pasha, Ishrat, 918–23
Patel, Geeta, 1406–10
Patel, Piyushbhai K., 1621–8
Paul, Iain C., 1577–82, 1583–90
Pedersen, Carl T., 1062–5
Pedulli, Gian Franco, 1274–9
Peel, J. Barrie, 991–4
Peet, Kathleen M., 320–3
Pemberton, Susan M., 1230–3
Pepe, Gerard, 1525–8
Pepe, Nicola, 1430–6
Perez-Ossorio, Rafael, 597–603
Perez-Rubalcaba, Alfredo, 597–603
Perrini, Giancarlo, 324–6
Petrillo, Giovanni, 327–30
Phelps, David J., 140–2
Piancastelli, M. Novella, 656–9
Picard, Claude, 1554–7
Pichon, Roger, 219
Pilkington, James W., 935–9
Pineda, Nelson, 1392–400
Pinkus, A. George, 473–7
Piras, Pierpaolo, 1449–53
Pirazzini, Graziella, 1043–50
Placucci, Giuseppe, 703–7
Plochocka, Danuta, 82–9
Pochan, John M., 1267–73
Podda, Gianni, 1274–9
Poloni, Marino, 628–32
Pope, Leslie, 281–5
Povey, David C., 369–75
Praefcke, Klaus, 1417–29

Prankerd, Richard J., 481–7
Prince, Richard J., 266–9
Procter, Garry, 266–9
Pyne, Geoffrey S., 369–75
Quiroga, Maria L., 597–603
Rabczenko, Andrzej, 82–9
Randall, David, 1411–16
Randall, Edward W., 494–9
Raston, Colin L., 576–82, 583–9, 610–27, 1467–72, 1473–80
Rees, John C., 948–52, 953–7
Riand, Jacques, 783–8
Ricci, Alfredo, 1043–50
Ridd, John H., 94–9, 518–25
Ringdahl, Bjorn, 697–8
Roberts, Brian P., 161–6, 866–9, 905–11, 1211–20
Roberts, Charles, 553–60
Roberts, Ian, 409–13
Robertson, Ross E., 447–56, 1157–60
Robinson, Stephen R., 518–25
Rolla, Franco, 821–4
Romers, Cornelius, 478–80
Rothwell, E. John, 1384–91
Roullier, Loic, 1520–3
Rowe, Jeffrey E., 753–9
Runge, Wolfgang, 270–80
Rychlewska, Urszula, 660–3
Rys, Paul, 1358–66
Saadatjou, Naghi, 1292–4
Sabesan, Arunachalam, 473–7
Sabin, John R., 1062–5
Sabljic, Aleksandar, 127–31
Sadek, Maruse, 753–9
Sadler, David E., 774–82
Saitou, Naoko, 1599–605
Sakai, Toshimi, 298–302
Saleh, Azhari, 132–9
Salisbury, Kingsley, 774–82
Sammes, Michael P., 303–9, 1501–7
Samori, Bruno, 1529–33
Samuel, Christopher J., 736–40
Sanchez, Michel, 19–25
Sansom, Peter J., 664–9
Satchell, Derek P. N., 1406–10
Satchell, Rosemary S., 901–4, 1406–10
Say, Barry J., 1031–5
Scaiano, Juan C., 905–11
Schaafsma, Tjeerd J., 1005–9
Schalke, Peter M., 113–20
Schenetti, Luisa, 228–32
Schipfer, Rudolf, 1443–8
Schipper, Pieter, 457–63
Schmidt, John L., 713–19
Schneider, Hermann, 1486–91
Schofield, Kenneth, 842–7, 848–51, 1358–66
Schulte-Frohlinde, Dietrich, 143–54
Scott, John W. M., 447–56, 1157–60
Scotton, Martin J., 419–23
Seconi, Giancarlo, 931–4, 1043–50, 1051–6
Seiji, Yoshiyuki, 1596–8
Selby, Keith, 1036–42
Sempere, Eugenia, 561–70
Senda, Yasuhisa, 90–3
Serafino, Anna, 1240–2
Sevenster, Arjen J. L., 1148–52
Shafig, Yousif El Din, 675–83
Shannon, Patrick V. R., 286–97
Shen, Celia C., 1084–8
Shepherd, Alistair G., 1206–10
Sherrington, David C., 514–17
Sherry, Robert, 366–8
Shimaya, Keisuke, 944–7
Shimohigashi, Yasuyuki, 1171–5
Shinkai, Seiji, 298–302, 1596–8
Shinouda, Hakim G., 58–61
Short, Eric L., 58–61, 830–7
Shorter, John, 500–8, 720–4, 1572–6
Sicre, Juan E., 940–3
Simonetta, Massimo, 488–93
Simonsen, Stanley H., 303–9
Singh, Karamjit, 866–9
Sjoestroem, Michael, 104–9
Skelton, Brian W., 442–6, 576–82 583–9, 610–27, 1467–72
Smith, Ian G., 1180–5
Smith, Janet M., 1629–32
Sondheimer, Franz, 478–80
Sone, Takaaki, 298–302, 1596–8
Sordo, Tomas, 708–12
Souto-Bachiller, Fernando A., 794–800
Spada, Gian Piero, 1529–33
Spagnolo, Piero, 1437–42
Speier, Gabor, 1176–9
Speranza, Maurizio, 1430–6
Spinelli, Domenico, 388–92, 642–4, 1325–8
Stammer, Charles H., 1171–5
Stanney, Keith, 838–41, 967–9
Steglich, Wolfgang, 127–31
Stenhouse, Ian A., 975–9
Stockburn, William A., 1492–500
Stuart, Alan D., 583–9, 1473–80
Subramanian, Narayanasamy, 1280–2
Suckling, Colin J., 1616–20
Suffritti, Giuseppe B., 488–93
Sutcliffe, Roger, 1512–19
Symons, Martyn C. R., 185–92, 1180–5
Tabet, J. C., 1591–5
Tabner, Brian J., 1148–52, 1295–7, 1384–91, 1508–11
Taddei, Ferdinando, 228–32
Taft, Robert W., 353–5
Takahashi, Fujio, 432–7
Takasuka, Mamoru, 1558–61
Takeuchi, Hiroshi, 121–6
Takeuchi, Ken'ichi, 670–4
Taylor, Graham N., 980–4
Taylor, Paul W., 286–97
Taylor, Peter G., 409–13, 842–7
Taylor, Roger, 675–83, 1153–6
Teague, Catherine E., 730–5
Tedder, John M., 838–41, 967–9
Thea, Sergio, 65–71, 72–7, 78–81 327–30
Thomas, C. Barry, 1186–99
Tillett, John G., 132–9
Tokuda, Yuuji, 298–302
Tomaselli, Gaetano A., 221–7, 438–41
Tomasin, Alberto, 1070–5
Tomizawa, Kohtaro, 110–12
Tonellato, Umberto, 260–5
Torre, Michele, 324–6
Townson, Michael, 1121–6
Traverso, Pietro G., 1070–5
Trinajstic, Nenad, 127–31
Tripolone, Mario, 438–41
Trogen, Lars, 1260–3
Trotter, Jill, 468–72
Truter, Mary R., 1–11, 1025–30, 1606–15
Tse, Man-Wing, 369–75, 1132–7
Turton, Andrew R., 1292–4
Tyeklar, Zoltan, 1176–9
Ueda, Chihiro, 1599–605
Utley, James H. P., 1520–3
Van der Plas, Henk C., 1005–9
Varveri, Fannie S., 985–90
Vaughan, Keith, 1161–5M.
Venayak, Narinder D., 975–9
Vickery, Brian, 155–60, 1454–8
Vincent, Colin A., 801–6
Viterbo, Davide, 1240–2
Vivona, Nicolo, 1325–8
Waddington, David J., 1036–42
Walker, Timothy, 1295–7, 1508–11
Walkinshaw, Malcolm D., 1099–104
Wallis, John D., 266–9
Walsh, Robin, 1076–83
Walton, David J., 801–6
Walton, John C., 553–60, 633–41 970–4
Wanas, Galila A., 1534–7
Waring, Anthony J., 935–9
Waters, David N., 376–8
Watkin, David J., 266–9
Watkins, Steven F., 877–82
Watt, Ian, 175–84
Watts, William E., 193–200, 924–30
Webber, Andrew, 1520–3
Wendelboe, Jens F., 958–66
Wettermark, Gunnar, 256–9
White, Allan H., 442–6, 576–82, 583–9, 610–27, 1467–72, 1473–80
Whiteside, Robert, 794–800
Whittaker, David, 948–52, 953–7
Willey, Gerald R., 155–60, 1454–8
Williams, Andrew, 65–71, 72–7, 78–81, 590–6
Williams, D. Lyn H., 361–5, 699–702, 1021–4
Williams, Dudley H., 201–6, 958–66
Williams, Gareth H., 1109–20
Williams, Kenneth P. J., 852–9
Williams, Peter S., 207–18, 1066–9, 1392–400, 1401–5
Williams, Robert C., 233–8
Williamson, Michael P., 201–6
Willson, Robin L., 890–5
Wilson, Alan A., 1616–20
Wilson, David A., 860–5
Wingfield, Jonathan N., 1025–30
Witiak, Dennis N., 770–3
Wold, Svante, 104–9
Wolf, Robert, 19–25
Wolfbeis, Otto S., 1443–8
Wong, Henry N. C., 478–80
Wood, David L., 1230–3
Worley, S. Davis, 1411–16
Worth, Graeme K., 576–82
Yaggi, Norbert F., 171–4
Yamada, Tetsuya, 414–18
Yokomichi, Yasunori, 670–4
Yokota, Tomoko, 1599–605
Yoshimura, Toshiaki, 432–7
Zaidi, Javid Hussain, 935–9
Zemach, Dvora, 336–40

SUBJECT INDEX, 1981

ABSORPTION
Photogalvanic cells. Part 14. The synthesis and characterization of disulfonated thionines, 794–800
ABSTRACTION
Reactions of the methylthiyl radical with unsaturated cycloalkanes: abstraction, addition, and rearrangement, 703–7
Reactions of oxygenated radicals in the gas phase. Part 8. Reactions of alkoxyl radicals with aldehydes and ketones, 1036–42
An electron spin resonance study of 3–oxypropenoyl radicals derived from glycidols, 1132–7
Electron spin resonance studies. Part 61. The generation and reactions of the tert–butoxyl radical in aqueous solution, 1392–400
ACENAPHTHENEDIOL
1,8–Diacetylnaphthalene and its cyclization to 3–methyl–1H–phenalen–1–one, 58–61
ACETAMIDO
Solid–state transformations and crystal structure analysis of α– and β–o–acetamidobenzamide, 233–8
ACETAMIDOBENZAMIDE
Solid–state transformations and crystal structure analysis of α– and β–o–acetamidobenzamide, 233–8
ACETAMIDOPHENYL
The kinetics and mechanisms of aromatic halogen substitution. Part 35. The directive effect of the benzoyloxy substituent, 1629–32
ACETATE
Photolysis and thermolysis of 3–n–butyl–3–phenyldiazirine, 53–7
Function micellar catalysis. Part 4. Catalysis of activated ester hydrolysis by surfactant systems as chymotrypsin models, 260–5
Nucleophilicity of phenolates in the reaction with p–nitrophenyl acetate in ethanol, 327–30
Oxidation by cobalt(III) acetate. Part 3. Allylic oxidation of various olefins in acetic acid, 817–20
Aroyl peroxides. Part 7. The effects of additives on the thermolysis of aroyl peroxides in arenes and the elimination of possible complications in the measurement of partial rate factors for phenylation, 1109–20
Kinetics and mechanism of the reaction of substituted phenylhydrazones with thallium(III) acetate. Reactions of mercury(II) acetate with nitrogen compounds. Part 8, 1243–6
Gas–phase thermolyses. Part 5. Thermally–induced rearrangement of methyl acetate in the gas phase, 1256–9
ACETOLYSIS
Ring–opening reactions of some 1–ethoxycarbonylaziridines with acetic acid in cyclohexane, 121–6
ACETONE
Metastable decomposition of $C_3H_6O^{\bullet+}$ ions, 770–3
ACETOXYLALKYL
Ring–opening reactions of some 1–ethoxycarbonylaziridines with acetic acid in cyclohexane, 121–6
ACETOXYLALKYLCARBAMATE
Ring–opening reactions of some 1–ethoxycarbonylaziridines with acetic acid in cyclohexane, 121–6
ACETYL
1,8–Diacetylnaphthalene and its cyclization to 3–methyl–1H–phenalen–1–one, 58–61
Leaving group effects in thiolester hydrolysis. Part 2. On the possibility of an elimination–addition (keten) mediated pathway in S–acetylcoenzyme A basic hydrolysis and acetyl transfer, 171–4
The conformation of 4–acetylpyridine determined from proton and deuterium nuclear magnetic resonance spectra of a nematic phase 540–4
Acetyl exchange between acetyl chloride and sterically hindered aryl ketones under Friedel–Crafts conditions, 830–7
ACETYLATION
The Friedel–Crafts acetylatin of naphthalene. Evidence for concurrent second– and third–order reactions, 376–8
Acetyl exchange between acetyl chloride and sterically hindered aryl ketones under Friedel–Crafts conditions, 830–7
ACETYLCOENZYME
Leaving group effects in thiolester hydrolysis. Part 2. On the possibility of an elimination–addition (keten) mediated pathway in S–acetylcoenzyme A basic hydrolysis and acetyl transfer, 171–4
ACETYLNAPHTHALENE
1,8–Diacetylnaphthalene and its cyclization to 3–methyl–1H–phenalen–1–one, 58–61
Conformational behavior of organic carbonyl compounds. Part 2. Aldehydes and acetyl derivatives of condensed aromatic hydrocarbons, 228–32
ACETYLPHENANTHRENE
Conformational behavior of organic carbonyl compounds. Part 2. Aldehydes and acetyl derivatives of condensed aromatic hydrocarbons, 228–32
ACETYLPYRIDINE
The conformation of 4–acetylpyridine determined from proton and deuterium nuclear magnetic resonance spectra of a nematic phase 540–4
ACID
General acid inhibition and the absence of deuterium isotope exchange in base catalyzed hydrolysis of 2,4–dinitrophenyl arylmethanesulfonate esters in aqueous solution, 65–71
Nitration in aqueous nitric acid: the rate profile and the limiting reaction rates, 94–9
The acid–catalyzed hydrolysis of episulfoxides, 132–9
Analysis of the dependence of acid dissociation constants on temperature, 447–56
Stepwise proton transfer in the acid–catalyzed hydrolysis of 3,1–benzoxazin–4–ones: electrostatic or hydrogen–bond stabilization of the conjugate acid, 590–6
Electrophilic aromatic substitution. Part 26. The kinetics and mechanism of nitration of some reactive benzene derivatives in aqueous phosphoric acid. The identification of steps rate–limited by nitronium ion formation and by diffusion, 848–51
Nuclear magnetic resonance investigations of iminium ion intermediates. Part 9. Multinuclear study of the reaction between Lewis acids and vinylogous amides, 912–17
Complexation between 3–methylorotic (3–methyluracil–6–carboxylic) acid dianion and divalent metal cations. The slow acid dissociation of transition metal complexes and its possible relevance to orotic acid phosphoribosylation, 1057–61
The M_C activity coefficient function for acid–base equilibriums. Part 5. The M_C activity coefficient for a reliable estimate of thermodynamic values, 1070–5
A kinetic analysis of the acidic degradation of penicillin G and confirmation of penicillamine as a degradation product, 1247–51
Kinetic deuterium solvent isotope effects on the general acid–catalyzed dissociation of metal cryptates, 1486–91
Kinetic and equilibrium acid–base properties of strong naphthalenediamine bases, 1562–5
ACIDITY
Elimination and hydrolysis reactions of 4–alkoxyimino–5,6–dihydro–6–alkoxyaminopyrimidin–2(1H)–ones and 4–alkoxyimino–5–fluoro–5,6–dihydro–6–alkoxyaminopyrimidin–2(1H)–ones in strong acid media, 113–20
Pyridine nitrogen reactivity, 409–13
An electron spin resonance study on the interactions between bis(pentane–2,4–dionato)copper(II) and some heterocycles. Part 2. The 1:1 adducts with aza–aromatic compounds and azacyclohexanes, 652–5
The relative efficiencies of a number of nitrite traps at different acidities and bromide ion concentrations, 699–702
Electrophilic aromatic substitution. Part 25. The nitration in aqueous sulfuric acid of some cinnamic acids and other styrene derivatives, 842–7
Electrogeneration of cyanomethyl anion from phenylsulfonylacetonitrile and cyanomethyltrimesitylphosphonium iodide and the relative acidities of XCH_2CN ($X = Ph_3P^+$, Ph_3As^+, Mes_3P^+, or $PhSO_2$) versus acetic acid in acetonitrile, 1093–8
Routes to 3–bromoflavanone from erythro–2'–hydroxychalcone dibromide: spectral and kinetic evidence for the dominating role of elimination–addition sequences via (E)– and (Z)–α–bromo–2'–hydroxychalcones, 1367–73
pH–dependent fluorescence spectroscopy. Part 12. Flavone, 7–hydroxyflavone, and 7–methoxyflavone, 1443–8
The influence of the solvent on organic reactivity. Part 4. Spectroscopic parameters of Lewis basicity and acidity of

ACIDITY(contd)
hydroxylic solvents. A comprehensive correlation analysis of the log k values for the reactions of diazodiphenylmethane with benzoic acid in aprotic and hydroxylic solvents at 37°C, 1572–6
ACROLEIN
A theoretical investigation of the π–polarization mechanism. The importance of localized and extended polarization, 760–4
An analysis of the proton and carbon–13 nuclear magnetic resonance spectra of 3–tert–butylaminoacrolein and of glyoxal–tert–butylhydrazone, 1283–6
The effect of charge and of electron density on the nuclear magnetic resonance parameters of conjugated systems: some isoelectronic anions and cations, 1287–91
ACRYLATE
Vibrational spectroscopy and conformations of 2–alkoxycarbonyl–3–aminoacrylic esters, 561–70
ACRYLONITRILE
The synthesis of 1,4–disubstituted bicyclo[2.2.2]octanes exhibiting wide–range, enantiotropic nematic phases, 26–31
ACTINOMETRY
Photochromic heterocyclic fulgides. Part 3. The use of (E)–α–(2,5–dimethyl–3–furylethylidene)(isopropylidene)succinic anhydride as a simple convenient chemical actinometer, 341–3
ACTIVATION
Reaction of N,N'–dimethylimidazolidine–2–thione with methyl iodide. Kinetic and thermodynamic aspects, 414–18
Molecular interactions in nonaqueous solvents. Part 3. Kinetics and energetics of dimerization of a tetrasubstituted copper(II) phthalocyanine dye, 765–9
Kinetics and mechanisms of the Bamberger rearrangement. Part 4. Rearrangement of sterically hindered phenylhydroxylamines to 4–aminophenols in aqueous sulfuric acid solution, 1596–8
ACTIVITY
Nonsupported and resin–supported oligo(oxyethylenes) as solid–liquid phase–transfer catalysts. Effect of chain length and head–group, 514–17
Solvolysis of some alkyl esters of fluorosulfuric acid in water and aqueous solvents, 940–3
The M_C activity coefficient function for acid–base equilibriums. Part 5. The M_C activity coefficient for a reliable estimate of thermodynamic values, 1070–5
ACYLOIN
Mechanistic studies in the chemistry of urea. Part 8. Reactions of urea, 1–methylurea, and 1,3–dimethylurea with some acyloins and butane–2,3–dione (diacetyl) in acid solution, 310–16
ADDN
The synthesis of 1,4–disubstituted bicyclo[2.2.2]octanes exhibiting wide–range, enantiotropic nematic phases, 26–31
The influence of remote substituents on amide bond formation. The reaction of oxazolinones with benzylamine, 140–2
Reactions of 1,1–dialkoxyalkene radical cations in aqueous solution with OH^-, HPO_4^{2-}, and H_2O. Electron spin resonance spectroscopic, pulse conductometric, and product analytical studies, 143–54
An electron spin resonance study of alkyl radical addition to diethyl vinylphosphonate, 161–6
Electron spin resonance studies. Part 59. Radical reactions of thiophens: the formation and reactions of some sulfur–conjugated radical–cations, 207–18
The stabilities of Meisenheimer complexes. Part 24. Some reactions of 2,4,6–trinitrotoluene and 2,4,6–trinitrobenzyl chloride with bases, 526–32
The pyridine–catalyzed reaction of methanol with phenyl isocyanate in tetrachloromethane, 664–9
Reactions of the methylthiyl radical with unsaturated cycloalkanes: abstraction, addition, and rearrangement, 703–7
Electrophilic aromatic substitution. Part 25. The nitration in aqueous sulfuric acid of some cinnamic acids and other styrene derivatives, 842–7
An electron spin resonance study of radical addition to bis(trimethylsilyl)amino(trimethylsilylimino)phosphine, $(Me_3Si)_2NP{:}NSiMe_3$ 866–9
A laser flash photolysis study of tert–butoxyphosphoranyl radicals. Optical spectra and kinetics of formation, fragmentation, and rearrangement, 905–11
Electrogeneration of cyanomethyl anion from phenylsulfonylacetonitrile and cyanomethyltrimesitylphosphonium iodide and the relative acidities of XCH_2CN (X = Ph_3P^+, Ph_3As^+, Mes_3P^+, or $PhSO_2$) versus acetic acid in acetonitrile, 1093–8
Electron spin resonance studies of thiophosphoranyl radicals. The mechanism of ligand permutation in phosphoranyl radicals, 1211–20
Electron spin resonance studies. Part 61. The generation and reactions of the tert–butoxyl radical in aqueous solution, 1392–400
ADDUCT
Electron spin resonance studies of spin trapping. On the role of hydroxylamines and an oxaziridine in the formation of nitroxides following addition of hydroxyalkyl radicals to N–tert–butyl–α–phenylnitrone, 379–81
An electron spin resonance study on the interactions between bis(pentane–2,4–dionato)copper(II) and some heterocycles. Part 2. The 1:1 adducts with aza–aromatic compounds and azacyclohexanes, 652–5
Reactions of the methylthiyl radical with unsaturated cycloalkanes: abstraction, addition, and rearrangement, 703–7
Unstable intermediates. Part 194. Alkyl radical–halide ion adducts: an electron spin resonance study of the radiolysis of a range of alkyl bromides and iodides, 1180–5
Paramagnetic intermediates in the thermal reactions of benzo[2,1–b;3,4–b']dithiophene–4,5–dione with some metal(III) compounds of the heavier Group VA elements, 1274–9
AGLUCOVANCOMYCIN
Assignment of the carbon–13 spectrum of vancomycin and its derivatives, 201–6
ALC
Electrophilic aromatic substitution. Part 25. The nitration in aqueous sulfuric acid of some cinnamic acids and other styrene derivatives, 842–7
Electron spin resonance studies. Part 61. The generation and reactions of the tert–butoxyl radical in aqueous solution, 1392–400
Electron spin resonance studies. Part 62. Acid–catalyzed interconversion of β–hydroxyalkyl radicals: radical–cation intermediates, 1401–5
Relationship of the oxygen–17 chemical shift to the stretching frequency of the hydroxy group in saturated alcohols, 1558–61
The influence of the solvent on organic reactivity. Part 4. Spectroscopic parameters of Lewis basicity and acidity of hydroxylic solvents. A comprehensive correlation analysis of the log k values for the reactions of diazodiphenylmethane with benzoic acid in aprotic and hydroxylic solvents at 37°C, 1572–6
Ion–molecule reactions in the gas phase. Part 1. Stereospecific nucleophilic substitution of tertiary alcohols by ammonia, 1591–5
ALCOHOLYSIS
Nucleophilic substitution at sulfonyl sulfur. Part 2. Hydrolysis and alcoholysis of aromatic sulfonyl chlorides, 438–41
ALDEHYDE
Stereochemistry of addition to the carbonyl group. Part 17. Study of the factors affecting asymmetric induction in condensation reactions of methyl– and phenylmagnesium bromide with chiral carbonyl compounds, 597–603
Nuclear magnetic resonance investigations of iminium ion intermediates. Part 9. Multinuclear study of the reaction between Lewis acids and vinylogous amides, 912–17
Reactions of oxygenated radicals in the gas phase. Part 8. Reactions of alkoxyl radicals with aldehydes and ketones, 1036–42
Linear free energy relationships. Part 10. Synthesis, thermal, spectral, electrochemical, and hole transport (conduction) properties of some novel carbazole derivatives, 1267–73
ALIPH
The synthesis of 1,4–disubstituted bicyclo[2.2.2]octanes exhibiting wide–range, enantiotropic nematic phases, 26–31
ALKALI
Linewidth alternation in the electron spin resonance spectrum of the fluorene radical anion in the presence of dibenzo crown ethers, 1384–91
ALKANAMINE
The stabilities of Meisenheimer complexes. Part 25. Kinetic studies of the reaction of 1,3,5–trinitrobenzene with aliphatic amines in dimethyl sulfoxide, 533–9
ALKANE
Electron spin resonance and molecular orbital study of radicals in irradiated fluoro–derivatives, 425–31
ALKANOATE
Function micellar catalysis. Part 4. Catalysis of activated ester hydrolysis by surfactant systems as chymotrypsin models, 260–5
ALKENE
Reactions of 1,1–dialkoxyalkene radical cations in aqueous solution

ALKENE(contd)
with OH^-, HPO_4^{2-}, and H_2O. Electron spin resonance spectroscopic, pulse conductometric, and product analytical studies, 143–54
ALKENYLPHOSPHONIUM
Electroorganic reactions. Part 17. The competition between cleavage and ylide formation in the cathodic reduction of benzyl–allyl–, cinnamyl–, and polyenylphosphonium salts, 1520–3
ALKOXIDE
The stabilities of Meisenheimer complexes. Part 24. Some reactions of 2,4,6–trinitrotoluene and 2,4,6–trinitrobenzyl chloride with bases, 526–32
ALKOXYALKENE
Reactions of 1,1–dialkoxyalkene radical cations in aqueous solution with OH^-, HPO_4^{2-}, and H_2O. Electron spin resonance spectroscopic, pulse conductometric, and product analytical studies, 143–54
ALKOXYBENZENE
Nitration in aqueous nitric acid: the rate profile and the limiting reaction rates, 94–9
ALKOXYCARBONYL
Vibrational spectroscopy and conformations of 2–alkoxycarbonyl–3–aminoacrylic esters, 561–70
ALKOXYCARBONYLAMINOACYLATE
Vibrational spectroscopy and conformations of 2–alkoxycarbonyl–3–aminoacrylic esters, 561–70
ALKYL
An electron spin resonance study of alkyl radical addition to diethyl vinylphosphonate, 161–6
The effect of electrochemically generated positive bromine species in acetonitrile on the cleavage of carbon–bromine and carbon–chlorine bonds, 336–40
Electron spin resonance studies of spin trapping. On the role of hydroxylamines and an oxaziridine in the formation of nitroxides following addition of hydroxyalkyl radicals to N–tert–butyl–α–phenylnitrone, 379–81
Autoxidation of alkyl compounds of zirconium and hafnium, 419–23
The fluorescence of some dipolar N,N–dialkyl–4–(dichloro–1,3,5–triazinyl)anilines. Part 2. Temperature and solvent effects on the radiationless decay of an intramolecular charge–transfer excited singlet state, 918–23
Solvolysis of some alkyl esters of fluorosulfuric acid in water and aqueous solvents, 940–3
The hydrogen–stretching absorptions and conformations of tetralin–1–ol, chroman–4–ol, thiochroman–4–ol, and indan–1–ol derivatives, 944–7
The dependence on temperature of rate constants for solvolysis of alkyl halides and related compounds in water, 1157–60
Unstable intermediates. Part 194. Alkyl radical–halide ion adducts: an electron spin resonance study of the radiolysis of a range of alkyl bromides and iodides, 1180–5
Organic peroxides. Part 12. The preparation and properties of some triazinyl peroxides, 1512–19
ALKYLAMIDE
Linear solvation energy relationship. Part 11. An analysis of nitrogen–15 solvent shifts in amides, 353–5
ALKYLAMINO
Conformation and stereodynamics of 2–dialkylamino–1,3–dimethyl–2,3–dihydro–1H–1,3,2–benzodiazaphospholes. An experimental nuclear magnetic resonance, ultraviolet photoelectron, and theoretical MNDO investigation, 1411–16
ALKYLAMINOMETHYLBENZODIAZAPHOSPHOLE
Conformation and stereodynamics of 2–dialkylamino–1,3–dimethyl–2,3–dihydro–1H–1,3,2–benzodiazaphospholes. An experimental nuclear magnetic resonance, ultraviolet photoelectron, and theoretical MNDO investigation, 1411–16
ALKYLCHLOROTRIAZINYLANILINE
The fluorescence of some dipolar N,N–dialkyl–4–(dichloro–1,3,5–triazinyl)anilines. Part 2. Temperature and solvent effects on the radiationless decay of an intramolecular charge–transfer excited singlet state, 918–23
ALKYLCHROMANOL
The hydrogen–stretching absorptions and conformations of tetralin–1–ol, chroman–4–ol, thiochroman–4–ol, and indan–1–ol derivatives, 944–7
ALKYLENE
Mechanistic studies in the chemistry of urea. Part 9. Reactions of 1,2–diaminoethane and related compounds with urea and N–alkylated ureas, 317–19
First thermodynamic dissociation constants of barbituric acid derivatives in water at 25°C. Part 3. 5,5–Alkylenebarbituric acid derivatives. A comparison with 5,5–dialkylbarbituric acids, and with mono– and dicarboxylic acids, 481–7
ALKYLENEBARBITURATE
First thermodynamic dissociation constants of barbituric acid derivatives in water at 25°C. Part 3. 5,5–Alkylenebarbituric acid derivatives. A comparison with 5,5–dialkylbarbituric acids, and with mono– and dicarboxylic acids, 481–7
ALKYLENEDIAMINE
Mechanistic studies in the chemistry of urea. Part 9. Reactions of 1,2–diaminoethane and related compounds with urea and N–alkylated ureas, 317–19
ALKYLHAFNOCENE
Autoxidation of alkyl compounds of zirconium and hafnium, 419–23
ALKYLHYDROXYCYCLOHEXYL
Electron spin resonance study of inversion and conformations in 1–hydroxycyclohexyl radicals, 1143–7
ALKYLIUM
Spontaneous and base–catalyzed elimination from 1–ferrocenylalkyl cations, 924–30
ALKYLPHENYL
Thermal and photochemical reactions of organocobaloximes with diphenyl disulfide and diphenyl diselenide, 393–8
ALKYLSULFOXIMIDE
Enhanced reactivities in substitution and elimination reactions in dimethyl sulfoximide, 432–7
ALKYLTETRALINOL
The hydrogen–stretching absorptions and conformations of tetralin–1–ol, chroman–4–ol, thiochroman–4–ol, and indan–1–ol derivatives, 944–7
ALKYLZIRCONOCENE
Autoxidation of alkyl compounds of zirconium and hafnium, 419–23
ALLYLBENZENE
Oxidation by cobalt(III) acetate. Part 3. Allylic oxidation of various olefins in acetic acid, 817–20
ALLYLIC
Oxidation by cobalt(III) acetate. Part 3. Allylic oxidation of various olefins in acetic acid, 817–20
AMIDE
Linear solvation energy relationship. Part 11. An analysis of nitrogen–15 solvent shifts in amides, 353–5
AMIDOBENZENESULFONATE
Photogalvanic cells. Part 14. The synthesis and characterization of disulfonated thionines, 794–800
AMINATION
The stabilities of Meisenheimer complexes. Part 25. Kinetic studies of the reaction of 1,3,5–trinitrobenzene with aliphatic amines in dimethyl sulfoxide, 533–9
Kinetics and mechanism of the reactions of primary amines with pyrylium cations, 571–5
AMINE
Reactions of N–heteroaromatic bases with nitrous acid. Part 7. Kinetics of the nitrosation of secondary and of the diazotization of primary β–aminopyridines, 248–55
Ipso attack in the nitration of aromatic amines. Part 1. The reactions of N,N–dimethyl–p–toluidine and some related compounds, 518–25
Kinetics and mechanism of the reactions of primary amines with pyrylium cations, 571–5
Kinetics of the reactions of phenyl 2,4,6–trinitrophenyl ether with piperidine, n–butylamine, aniline, benzylamine, and morpholine in benzene, 1105–7
Kinetics of the reactions of aniline and 2,2,2–trifluoroethylamine with 1,3,5–trinitrobenzene in dimethyl sulfoxide and acetonitrile, and of 2,2,2–trifluoroethylamine with 1–fluoro– and 1–chloro–2,4–dinitrobenzenes in these solvents, 1201–5
Linear free energy relationships. Part 10. Synthesis, thermal, spectral, electrochemical, and hole transport (conduction) properties of some novel carbazole derivatives, 1267–73
AMINO
Vibrational spectroscopy and conformations of 2–alkoxycarbonyl–3–aminoacrylic esters, 561–70
The structures of the products of three condensation reactions: crystal and molecular structures of 5,6–dihydrothiazolo[2,3–c][1,2,4]thiadiazol–3–one, 6β–(1–ethyl–1–hydroxypropyl)–5α–phenyl–2,3,5,6–tetrahydroimidazo[2,1–b]thiazole, and 5,5–diphenyl–2,3–dihydroimidazo[2,1–b]thiazol–6(5H)–one, 789–93

AMINO(contd)
An electron spin resonance study of radical addition to bis(trimethylsilyl)amino(trimethylsilylimino)phosphine, $(Me_3Si)_2NP{:}NSiMe_3$ 866–9
Benzoquinone imines. Part 17. Kinetics and mechanism of the hydrolysis and cyclization of 2–aminoindophenols in aqueous solution, 886–9
Kinetics and mechanisms of the Bamberger rearrangement. Part 4. Rearrangement of sterically hindered phenylhydroxylamines to 4–aminophenols in aqueous sulfuric acid solution, 1596–8
AMINOACROLEIN
An analysis of the proton and carbon–13 nuclear magnetic resonance spectra of 3–tert–butylaminoacrolein and of glyoxal–tert–butylhydrazone, 1283–6
The effect of charge and of electron density on the nuclear magnetic resonance parameters of conjugated systems: some isoelectronic anions and cations, 1287–91
AMINOACRYLATE
Vibrational spectroscopy and conformations of 2–alkoxycarbonyl–3–aminoacrylic esters, 561–70
AMINOBENZENE
The anodic oxidation of 1,4–diaminobenzene: an electron spin resonance and electrochemical study, 825–9
AMINOIMINOPHOSPHINE
An electron spin resonance study of radical addition to bis(trimethylsilyl)amino(trimethylsilylimino)phosphine, $(Me_3Si)_2NP{:}NSiMe_3$ 866–9
AMINOINDOPHENOL
Benzoquinone imines. Part 17. Kinetics and mechanism of the hydrolysis and cyclization of 2–aminoindophenols in aqueous solution, 886–9
AMINOOXYPROPIONATE
Diastereoisomeric charge–transfer complexes. Measurement of thermodynamic constants by proton nuclear magnetic resonance spectroscopy, 350–2
AMINOPARACYCLOPHANE
Verdazyls. Part 30. N–1,N–1'–linked biverdazyls (bis–1,2,3,4–tetrahydro–s–tetrazin–1–yls) with a [2.2]–paracyclophanylene bridge, 896–900
AMINOPHENOL
Kinetics and mechanisms of the Bamberger rearrangement. Part 3. Rearrangement of phenylhydroxylamines to p–aminophenols in aqueous sulfuric acid solutions, 298–302
Kinetics and mechanisms of the Bamberger rearrangement. Part 4. Rearrangement of sterically hindered phenylhydroxylamines to 4–aminophenols in aqueous sulfuric acid solution, 1596–8
AMINOPHENYLFUROXAN
Unsymmetrically substituted furoxans. Part 6. 3–Nitro–4–phenylfuroxan: reaction with sodium methoxide and x–ray structural analysis, 1240–2
AMINOPYRIDINE
Reactions of N–heteroaromatic bases with nitrous acid. Part 7. Kinetics of the nitrosation of secondary and of the diazotization of primary β–aminopyridines, 248–55
AMINOPYRIMIDINE
Proton and carbon–13 nuclear magnetic resonance studies of substituted pyrimidines. Part 6. Carbon–13–proton coupling constants for some monoprotonated methyl– and aminopyrimidines, 783–8
AMINOTEREPHTHALATE
The heterogeneous thermal transformation of the yellow to the orange crystalline form of diethyl 2,5–diaminoterephthalate. X–ray crystal structures of the two forms, 1577–82
AMINOTHIAZOLINE
The structures of the products of three condensation reactions: crystal and molecular structures of 5,6–dihydrothiazolo[2,3–c][1,2,4]thiadiazol–3–one, 6β–(1–ethyl–1–hydroxypropyl)–5α–phenyl–2,3,5,6–tetrahydroimidazo[2,1–b]thiazole, and 5,5–diphenyl–2,3–dihydroimidazo[2,1–b]thiazol–6(5H)–one, 789–93
AMMONIA
Ion–molecule reactions in the gas phase. Part 1. Stereospecific nucleophilic substitution of tertiary alcohols by ammonia, 1591–5
AMMONIOBENZAMIDATE
Substituent effects in infrared spectroscopy. Part 6. Meta– and para–substituted N–ammoniobenzamidates, 1206–10
AMMONIUM
Nitration in aqueous nitric acid: the rate profile and the limiting reaction rates, 94–9
ANHYDRIDE
Photochromic heterocyclic fulgides. Part 3. The use of (E)–α–(2,5–dimethyl–3–furylethylidene)(isopropylidene)succinic anhydride as a simple convenient chemical actinometer, 341–3
ANIL
Linear free energy relationships. Part 10. Synthesis, thermal, spectral, electrochemical, and hole transport (conduction) properties of some novel carbazole derivatives, 1267–73
ANILINE
Catalysis of N–nitrosation and diazotization by thiourea and thiocyanate ion, 361–5
Linear free energy relationships in the thiophene series. Part 2. The kinetics of the reactions of some 2–bromo–3–nitro–5–X–thiophenes with substituted anilines in methanol, 388–92
The kinetics of the reaction of phenyl 2,4,6–trinitrophenyl ether with aniline in methanol, acetonitrile, tetrahydrofuran, ethyl acetate, and benzene, 399–402
The kinetics of the reactions of picryl chloride with some substituted anilines. Part 7. 2–Substituted and 2,5–disubstituted anilines, 883–5
The fluorescence of some dipolar N,N–dialkyl–4–(dichloro–1,3,5–triazinyl)anilines. Part 2. Temperature and solvent effects on the radiationless decay of an intramolecular charge–transfer excited singlet state, 918–23
Alkyl nitrites as nitrosating agents. Kinetics and mechanism of the reactions of propyl nitrite in propan–1–ol, 1021–4
Kinetics of the reactions of aniline and 2,2,2–trifluoroethylamine with 1,3,5–trinitrobenzene in dimethyl sulfoxide and acetonitrile, and of 2,2,2–trifluoroethylamine with 1–fluoro– and 1–chloro–2,4–dinitrobenzenes in these solvents, 1201–5
ANILINESULFONATE
Photogalvanic cells. Part 14. The synthesis and characterization of disulfonated thionines, 794–800
ANILINIUM
Association of crown ethers with anilinium ions in methanol solution and its influence on acid–base equilibriums, 1252–5
ANION
The electron spin resonance spectrum of the fulvalene radical anion 747–50
Electrogeneration of cyanomethyl anion from phenylsulfonylacetonitrile and cyanomethyltrimesitylphosphonium iodide and the relative acidities of XCH_2CN (X = Ph_3P^+, Ph_3As^+, Mes_3P^+, or $PhSO_2$) versus acetic acid in acetonitrile, 1093–8
An electron spin resonance investigation of the radical anions of the benzoylpyridines, 1148–52
Radical–anion intermediates. Part 8. The influence of a crown ether on the fluorene and 9–methylfluorene radical–anions, 1295–7
The radical anion of [2$_4$](1,2,4,5)cyclophane, 1298–303
ANISOLE
Reactions of nitroanisoles. Part 2. Reactions of 2,4– and 2,6–dinitroanisole with piperidines in benzene, 995–9
Gas–phase methylation of phenol and anisole by dimethylhalonium ions, 1430–6
Selective functionalization. Part 4. Proton nuclear magnetic resonance studies of the orientation of aromatic molecules by surfactant micelles, 1616–20
ANTHRACENECARBOXALDEHYDE
Conformational behavior of organic carbonyl compounds. Part 2. Aldehydes and acetyl derivatives of condensed aromatic hydrocarbons, 228–32
ANTIMONY
Protonation of alkyl aryl sulfides in antimony pentafluoride–fluorosulfonic acid solution, 62–4
ARABINOHEXOPYRANOSE
Reaction of 4,6–O–benzylideneglycals with benzoic acid, triphenylphosphine, and diethyl azodicarboxylate and of the products with sodium methoxide. X–ray structure of 1–O–benzoyl–4,6–O–benzylidene–2–deoxy–3–O–methyl–α–D–arabinohexopyranose, $C_{21}H_{22}O_6$, 468–72
ARENE
Perchlorate esters. Part 3. Correlation of the rates of reaction of arenesulfonate ions with methyl perchlorate in acetonitrile, 49–52
The mechanism for interconversion of stereoisomers in N–(2,3–dihydro–2–oxobenzoxazol–3–yl)– and N–(1,2–dihydro–2–oxoquinolin–1–yl)–N–1–methylallylarenesulfenamides, 509–13
Aroyl peroxides. Part 7. The effects of additives on the thermolysis of aroyl peroxides in arenes and the elimination of possible complications in the measurement of partial rate factors for phenylation, 1109–20

ARENEDIAZONIUM
Kinetics and intermediates in the several forward and reverse reactions of nitro–substituted arenediazonium ions with hydroxide ion, 1221–9
An investigation of the two step nature of Sandmeyer reaction, 1459–61
ARENEDIAZOTATE
Kinetics and intermediates in the several forward and reverse reactions of nitro–substituted arenediazonium ions with hydroxide ion, 1221–9
ARENESULFONATE
Perchlorate esters. Part 3. Correlation of the rates of reaction of arenesulfonate ions with methyl perchlorate in acetonitrile, 49–52
ARENETHIOLATE
Nucleophilicity of phenolates in the reaction with p–nitrophenyl acetate in ethanol, 327–30
AROM
Nitration in aqueous nitric acid: the rate profile and the limiting reaction rates, 94–9
Conformational behavior of organic carbonyl compounds. Part 2. Aldehydes and acetyl derivatives of condensed aromatic hydrocarbons, 228–32
Mechanistic studies in the chemistry of urea. Part 8. Reactions of urea, 1–methylurea, and 1,3–dimethylurea with some acyloins and butane–2,3–dione (diacetyl) in acid solution, 310–16
Ipso attack in the nitration of aromatic amines. Part 1. The reactions of N,N–dimethyl–p–toluidine and some related compounds, 518–25
Electrophilic aromatic substitution. Part 26. The kinetics and mechanism of nitration of some reactive benzene derivatives in aqueous phosphoric acid. The identification of steps rate–limited by nitronium ion formation and by diffusion, 848–51
Selective functionalization. Part 4. Proton nuclear magnetic resonance studies of the orientation of aromatic molecules by surfactant micelles, 1616–20
The kinetics and mechanisms of aromatic halogen substitution. Part 35. The directive effect of the benzoyloxy substituent, 1629–32
AROYL
Aroyl peroxides. Part 7. The effects of additives on the thermolysis of aroyl peroxides in arenes and the elimination of possible complications in the measurement of partial rate factors for phenylation, 1109–20
ARYL
Syn–anti–photoisomerization of chelated arylhydrazones of 1,2,3–triketones: a correction, 219
Dipole moment and helium(I) photoelectron spectroscopic studies of the conformation of di–2–pyridyl and diphenyl dichalcogenides R_2X_2 (X = S, Se, or Te), 281–5
Kinetic hydrogen isotope effects in intermolecular hydride transfer from arylalkanes to 9–arylfluoren–9–yl cations, 684–91
Acetyl exchange between acetyl chloride and sterically hindered aryl ketones under Friedel–Crafts conditions, 830–7
Carbon–13 and proton nuclear magnetic resonance study of solvent effects on tautomerism in 1–aryl–3–methyltriazenes, 1161–5M.
Kinetics and mechanism of the reaction of substituted phenylhydrazones with thallium(III) acetate. Reactions of mercury(II) acetate with nitrogen compounds. Part 8, 1243–6
Linear free energy relationships. Part 10. Synthesis, thermal, spectral, electrochemical, and hole transport (conduction) properties of some novel carbazole derivatives, 1267–73
The photochemistry of sulfoxides. A CIDNP study of carbon–sulfur bond cleavage paths, 1417–29
ARYLATION
Aroyl peroxides. Part 7. The effects of additives on the thermolysis of aroyl peroxides in arenes and the elimination of possible complications in the measurement of partial rate factors for phenylation, 1109–20
ARYLAZO
Polarography of some arylazothiohydantoin derivatives, 344–9
ARYLAZOTHIOHYDANTOIN
Polarography of some arylazothiohydantoin derivatives, 344–9
ARYLETHENYL
Conformational equilibrium in 1,2–diarylethylenes manifested in their emission in solution. Part 5. 2,6–Distyrylnaphthalene and related compounds, 1264–6
ARYLETHENYLNAPHTHALENE
Conformational equilibrium in 1,2–diarylethylenes manifested in their emission in solution. Part 5. 2,6–Distyrylnaphthalene and related compounds, 1264–6
ARYLETHYLENE
Isomerization of cis–1,2–diarylethylenes. Catalysis by selenium, methanesulfonic acid, and potassium tert–butoxide, 324–6
ARYLFLUORENYL
Kinetic hydrogen isotope effects in intermolecular hydride transfer from arylalkanes to 9–arylfluoren–9–yl cations, 684–91
ARYLHYDRAZONE
Kinetics and mechanism of the reaction of substituted phenylhydrazones with thallium(III) acetate. Reactions of mercury(II) acetate with nitrogen compounds. Part 8, 1243–6
ARYLHYDROXYLAMINE
Kinetics and mechanisms of the Bamberger rearrangement. Part 3. Rearrangement of phenylhydroxylamines to p–aminophenols in aqueous sulfuric acid solutions, 298–302
ARYLMETHANE
Kinetic hydrogen isotope effects in intermolecular hydride transfer from arylalkanes to 9–arylfluoren–9–yl cations, 684–91
ARYLMETHANESULFONATE
General acid inhibition and the absence of deuterium isotope exchange in base catalyzed hydrolysis of 2,4–dinitrophenyl arylmethanesulfonate esters in aqueous solution, 65–71
The effect of changing the substituent in the sulfonyl group in base catalyzed hydrolysis of 2,4–dinitrophenyl arylmethanesulfonate esters in aqueous solution, 72–7
The effect of structure change in bases on their reaction with 2,4–dinitrophenyl arylmethanesulfonate esters in water, 78–81
ARYLMETHYLTRIAZENE
Carbon–13 and proton nuclear magnetic resonance study of solvent effects on tautomerism in 1–aryl–3–methyltriazenes, 1161–5M.
ARYLSULFONYL
Nucleophilic substitution at sulfonyl sulfur. Part 2. Hydrolysis and alcoholysis of aromatic sulfonyl chlorides, 438–41
ARYLTETRAZOLIUMTHIOLATE
Studies on mesoionic compounds. Part 4. Protonation equilibriums of 2,3–diaryl–2H–tetrazolium–5–thiolates and 1,3,4–thiadiazolium–2–thiolates in aqueous perchloric acid solutions, 1534–7
ASPARTATE
On the mechanism of the action of thermolysin: kinetic study of the thermolysin–catalyzed condensation reaction of N–benzyloxycarbonyl–L–aspartic acid with L–phenylalanine methyl ester, 356–60
ASSOCN
Association of crown ethers with anilinium ions in methanol solution and its influence on acid–base equilibriums, 1252–5
ASYM
Stereochemistry of addition to the carbonyl group. Part 17. Study of the factors affecting asymmetric induction in condensation reactions of methyl– and phenylmagnesium bromide with chiral carbonyl compounds, 597–603
AUTOXIDN
Autoxidation of alkyl compounds of zirconium and hafnium, 419–23
AZABICYCLOOCTANE
Photoelectron spectroscopic studies of some 2–azabicyclo[2.2.2]octan–5–one and bicyclo[2.2.2]octanone derivatives, 991–4
AZAPENTANEDIOL
Bicyclic phosphanes: synthesis, stereochemistry, and conformation, 19–25
AZIDE
Perfluoro effects in nitrogen–15 nuclear magnetic resonance spectroscopy. Part 1. Aryl and N–heteroaryl azides, 975–9
AZIDO
Perfluoro effects in nitrogen–15 nuclear magnetic resonance spectroscopy. Part 1. Aryl and N–heteroaryl azides, 975–9
AZIRIDINE
Ring–opening reactions of some 1–ethoxycarbonylaziridines with acetic acid in cyclohexane, 121–6
AZOBENZENE
High–resolution carbon–13 nuclear magnetic resonance spectra of some solid trans–azobenzene and dyestuff species, 1031–5
AZOCYCLOHEXANE
An electron spin resonance study on the interactions between bis(pentane–2,4–dionato)copper(II) and some heterocycles. Part 2. The 1:1 adducts with aza–aromatic compounds and azacyclohexanes, 652–5
AZODIOXYBENZENE
Aromatic C–nitroso compounds. Thermodynamics and kinetics of the equilibrium between 2,6–dimethylnitrosobenzene and its trans–dimer, 256–9

BAMBERGER
Kinetics and mechanisms of the Bamberger rearrangement. Part 3. Rearrangement of phenylhydroxylamines to p-aminophenols in aqueous sulfuric acid solutions, 298–302
Kinetics and mechanisms of the Bamberger rearrangement. Part 4. Rearrangement of sterically hindered phenylhydroxylamines to 4-aminophenols in aqueous sulfuric acid solution, 1596–8
BARBITURATE
First thermodynamic dissociation constants of barbituric acid derivatives in water at 25°C. Part 3. 5,5-Alkylenebarbituric acid derivatives. A comparison with 5,5-dialkylbarbituric acids, and with mono- and dicarboxylic acids, 481–7
BARRIER
Barriers to intramolecular hydride transfers in some polycyclic hydroxyketones, 175–84
Conformational studies by dynamic nuclear magnetic resonance. Part 20. Internal motion in hydrazones and related derivatives, 604–9
Determination of ring inversion barriers for 1H,3H-naphtho[1,8-cd]pyran and its methyl substituted derivatives by molecular mechanics calculations and dynamic nuclear magnetic resonance spectroscopy, 741–6
Restricted rotation in methyl- and cyanomethyl-tris-(2,4,6-trimethylphenyl)phosphonium compounds. A proton nuclear magnetic resonance spectroscopic study. The crystal structure of cyanomethyltris-(2,4,6-trimethylphenyl)phosphonium tetraiodomercurate(II), 1099–104
Conformations and barriers to inversion of seven-membered cyclic oxamides and their monothio and dithio analogs: a study by dynamic nuclear magnetic resonance spectroscopy and molecular mechanics, 1344–50
Conformational studies by dynamic nuclear magnetic resonance spectroscopy. Part 21. Structure, conformation, and stereodynamics of sulfinylhydrazines, 1449–53
The effect of salt formation on structure and charge distribution in imines. Part 4. Energy barriers to isomerization about the carbon–nitrogen bond in 2,6-dimethyl-4-aryliminopyrans and their salts: solvent and substituent effects, and evidence for isomerization mechanisms, 1501–7
BASE
1,8-Diacetylnaphthalene and its cyclization to 3-methyl-1H-phenalen-1-one, 58–61
General acid inhibition and the absence of deuterium isotope exchange in base catalyzed hydrolysis of 2,4-dinitrophenyl arylmethanesulfonate esters in aqueous solution, 65–71
The effect of structure change in bases on their reaction with 2,4-dinitrophenyl arylmethanesulfonate esters in water, 78–81
The stabilities of Meisenheimer complexes. Part 24. Some reactions of 2,4,6-trinitrotoluene and 2,4,6-trinitrobenzyl chloride with bases, 526–32
Spontaneous and base-catalyzed elimination from 1-ferrocenylalkyl cations, 924–30
The M_C activity coefficient function for acid–base equilibriums. Part 5. The M_C activity coefficient for a reliable estimate of thermodynamic values, 1070–5
Kinetics of the reactions of phenyl 2,4,6-trinitrophenyl ether with piperidine, n-butylamine, aniline, benzylamine, and morpholine in benzene, 1105–7
Kinetic and equilibrium solvent isotope effects on the deprotonation of a salicylate ion by hydroxide ion and general bases, 1304–8
Mechanism of base-catalyzed hydrogen–deuterium exchange in thiazolium ion: evidence for the involvement of a tetrahedral intermediate, 1538–43
Kinetic and equilibrium acid–base properties of strong naphthalenediamine bases, 1562–5
BASICITY
The influence of the solvent on organic reactivity. Part 4. Spectroscopic parameters of Lewis basicity and acidity of hydroxylic solvents. A comprehensive correlation analysis of the log k values for the reactions of diazodiphenylmethane with benzoic acid in aprotic and hydroxylic solvents at 37°C, 1572–6
BENZALDEHYDE
Nuclear magnetic resonance investigations of iminium ion intermediates. Part 9. Multinuclear study of the reaction between Lewis acids and vinylogous amides, 912–17
BENZAMIDATE
Substituent effects in infrared spectroscopy. Part 6. Meta- and para-substituted N-ammoniobenzamidates, 1206–10
BENZAMIDE
Solid-state transformations and crystal structure analysis of α- and β-o-acetamidobenzamide, 233–8
BENZENE
Radiation mechanisms. Part 21. Electron spin resonance studies of the effect of ionizing radiation on halobenzenes: the formation of σ^* anions and ipso addition radicals, 185–92
The stabilities of Meisenheimer complexes. Part 25. Kinetic studies of the reaction of 1,3,5-trinitrobenzene with aliphatic amines in dimethyl sulfoxide, 533–9
The role of solvent in the mechanism of protonation of benzene and ethylene, 708–12
Carbon-13 substituent chemical shifts in the side-chain carbons of aromatic systems: the importance of π-polarization in determining chemical shifts, 753–9
The reaction of CH_4^+, CH_3^+ and other simple carbocations with benzene in the gas phase, 838–41
Electrophilic aromatic substitution. Part 26. The kinetics and mechanism of nitration of some reactive benzene derivatives in aqueous phosphoric acid. The identification of steps rate-limited by nitronium ion formation and by diffusion, 848–51
The reactions of some common electrophiles, methyl, nitrosonium, nitronium and nitromethyl cations, with monosubstituted benzenes in the gas phase, 967–9
Perfluoro effects in nitrogen-15 nuclear magnetic resonance spectroscopy. Part 1. Aryl and N-heteroaryl azides, 975–9
The heterogeneous thermal transformation of the orange diethyl N,N'-diphenyl-2,5-diaminoterephthalate–benzene complex to the red solvent-free compound. X-ray crystal structures of the two forms, 1583–90
BENZENEDIAZONIUM
Phenylhydrazone derivatives of Meldrum's acid: crystal and molecular structures of 2,2-dimethyl-1,3-dioxane-4,5,6-trione-5-(2-nitrophenylhydrazone) and 2,2-dimethyl-1,3-dioxane-4,5,6-trione-5-(2-chlorophenylhydrazone), 1454–8
BENZIMIDAZOLE
Cleavages of 1-methyl-2-trimethylsilylbenzimidazole and 2-trimethylsilylbenzothiazole in methanol and related media, 1051–6
BENZOATE
The separation of polar and steric effects. Part 14. Kinetics of the reactions of benzoic acid and of ortho-substituted benzoic acids with diazodiphenylmethane in various alcohols, 500–8
The separation of polar and steric effects. Part 15. Kinetics of the reactions of benzoic acid and of ortho-substituted benzoic acids with diazodiphenylmethane in various aprotic solvents, 720–4
Aroyl peroxides. Part 7. The effects of additives on the thermolysis of aroyl peroxides in arenes and the elimination of possible complications in the measurement of partial rate factors for phenylation, 1109–20
The influence of the solvent on organic reactivity. Part 4. Spectroscopic parameters of Lewis basicity and acidity of hydroxylic solvents. A comprehensive correlation analysis of the log k values for the reactions of diazodiphenylmethane with benzoic acid in aprotic and hydroxylic solvents at 37°C, 1572–6
The kinetics and mechanisms of aromatic halogen substitution. Part 35. The directive effect of the benzoyloxy substituent, 1629–32
BENZODIAZAPHOSPHOLE
Conformation and stereodynamics of 2-dialkylamino-1,3-dimethyl-2,3-dihydro-1H-1,3,2-benzodiazaphospholes. An experimental nuclear magnetic resonance, ultraviolet photoelectron, and theoretical MNDO investigation, 1411–16
BENZODITHIOPHENE
Paramagnetic intermediates in the thermal reactions of benzo[2,1-b;3,4-b']dithiophene-4,5-dione with some metal(III) compounds of the heavier Group VA elements, 1274–9
BENZODITHIOPHENEDIONE
Paramagnetic intermediates in the thermal reactions of benzo[2,1-b;3,4-b']dithiophene-4,5-dione with some metal(III) compounds of the heavier Group VA elements, 1274–9
BENZOFURANDICARBOXYLIC
Photochromic heterocyclic fulgides. Part 3. The use of (E)-α-(2,5-dimethyl-3-furylethylidene)(isopropylidene)succinic anhydride as a simple convenient chemical actinometer, 341–3
BENZOPHENONE
The photochemistry of sulfoxides. A CIDNP study of carbon–sulfur bond cleavage paths, 1417–29
Thermal decomposition of diazodiphenylmethane catalyzed by sulfur compounds in the presence of oxygen, 1437–42

BENZOPORPHYRIN
Preparation and spectroscopic properties of pure tetrabenzoporphyrins, 1005–9
BENZOQUINONE
Kinetics and mechanism of the oxidation of 3,5–di–tert–butyl–o–benzoquinone with hydrogen peroxide in aqueous methanol solution, 1176–9
BENZOTHIAZOLE
Cleavages of 1–methyl–2–trimethylsilylbenzimidazole and 2–trimethylsilylbenzothiazole in methanol and related media, 1051–6
BENZOTHIOPHENIUM
The crystal and molecular structure of 1,2,3,5–tetramethylbenzo[b]-thiophenium tetrafluoroborate and some theoretical calculations on the hypothetical 1H–thiophenium cation, 266–9
BENZOXAZINONE
Stepwise proton transfer in the acid–catalyzed hydrolysis of 3,1–benzoxazin–4–ones: electrostatic or hydrogen–bond stabilization of the conjugate acid, 590–6
BENZOXAZOLIUM
Anodic oxidation of carboxamides. Part 3. The mechanism of anodic cyclization of N–methylcarbanilides, 1599–605
BENZOYLAMINO
Mononuclear heterocyclic rearrangements. Part 7. Evidence for general base catalysis in the rearrangement of the Z–phenylhydrazone of 3–benzoyl–5–phenyl–1,2,4–oxadiazole into 2,5–diphenyl–4–benzoylamino–1,2,3–triazole in dioxane–water, 1325–8
BENZOYLAMINOTRIAZOLE
Mononuclear heterocyclic rearrangements. Part 7. Evidence for general base catalysis in the rearrangement of the Z–phenylhydrazone of 3–benzoyl–5–phenyl–1,2,4–oxadiazole into 2,5–diphenyl–4–benzoylamino–1,2,3–triazole in dioxane–water, 1325–8
BENZOYLATION
Reaction of 4,6–O–benzylideneglycals with benzoic acid, triphenylphosphine, and diethyl azodicarboxylate and of the products with sodium methoxide. X–ray structure of 1–O–benzoyl–4,6–O–benzylidene–2–deoxy–3–O–methyl–α–D–arabinohexopyranose, $C_{21}H_{22}O_6$, 468–72
BENZOYLOXY
The kinetics and mechanisms of aromatic halogen substitution. Part 35. The directive effect of the benzoyloxy substituent, 1629–32
BENZOYLOXYBENZENE
The kinetics and mechanisms of aromatic halogen substitution. Part 35. The directive effect of the benzoyloxy substituent, 1629–32
BENZOYLPHENYLOXADIAZOLE
Mononuclear heterocyclic rearrangements. Part 7. Evidence for general base catalysis in the rearrangement of the Z–phenylhydrazone of 3–benzoyl–5–phenyl–1,2,4–oxadiazole into 2,5–diphenyl–4–benzoylamino–1,2,3–triazole in dioxane–water, 1325–8
BENZOYLPYRIDINE
An electron spin resonance investigation of the radical anions of the benzoylpyridines, 1148–52
BENZYL
Free radical reactions in solution. Part 6. Thermal decomposition of substituted dibenzyl mercurials in solution. An improved σ• scale 1121–6
BENZYLAMINE
The influence of remote substituents on amide bond formation. The reaction of oxazolinones with benzylamine, 140–2
BENZYLDIMETHYL
Carbonyl n–π^* absorption enhancement in β–phenylketones: the molecular geometry of the 6–benzyl–2,6–dimethylcyclohexa–2,4–dienone Diels–Alder dimer and its photocage product, 442–6
BENZYLDIMETHYLCYCLOHEXADIENONE
Carbonyl n–π^* absorption enhancement in β–phenylketones: the molecular geometry of the 6–benzyl–2,6–dimethylcyclohexa–2,4–dienone Diels–Alder dimer and its photocage product, 442–6
BENZYLETHYLENEDIAMINE
The electrochemical reduction of N,N'–disubstituted 6'–phenyl–2,3–dihydro–1,4–diazepinium salts: formation of bis(tetrahydrodiazepinyls) and a diimidazolidinylbutadiene, 801–6
BENZYLIDENE
The influence of remote substituents on amide bond formation. The reaction of oxazolinones with benzylamine, 140–2
BENZYLIDENEALLAL
Reaction of 4,6–O–benzylideneglycals with benzoic acid, triphenylphosphine, and diethyl azodicarboxylate and of the products with sodium methoxide. X–ray structure of 1–O–benzoyl–4,6–O–benzylidene–2–deoxy–3–O–methyl–α–D–arabinohexopyranose, $C_{21}H_{22}O_6$, 468–72
BENZYLIDENEANILINE
Methanolysis of the benzylideneaniline derivatives $ArC(MMe_3)=NAr'$ (M = Si or Sn), 1043–50
BENZYLIDENEDEOXYMETHYLARABINOHEXOPYRANOSE
Reaction of 4,6–O–benzylideneglycals with benzoic acid, triphenylphosphine, and diethyl azodicarboxylate and of the products with sodium methoxide. X–ray structure of 1–O–benzoyl–4,6–O–benzylidene–2–deoxy–3–O–methyl–α–D–arabinohexopyranose, $C_{21}H_{22}O_6$, 468–72
BENZYLIDENEPHENYLOXAZOLINONE
The influence of remote substituents on amide bond formation. The reaction of oxazolinones with benzylamine, 140–2
BENZYLMERCURY
Free radical reactions in solution. Part 6. Thermal decomposition of substituted dibenzyl mercurials in solution. An improved σ• scale 1121–6
BENZYLOXYBENZYL
Methanolysis (solvolysis) and synthesis of 4'–substituted 4–benzyloxybenzyl chlorides and some related compounds: comparisons with the corresponding benzoyl compounds, 100–3
BENZYLOXYCARBONYL
On the mechanism of the action of thermolysin: kinetic study of the thermolysin–catalyzed condensation reaction of N–benzyloxycarbonyl–L–aspartic acid with L–phenylalanine methyl ester, 356–60
BENZYLOXYCARBONYLASPARTATE
On the mechanism of the action of thermolysin: kinetic study of the thermolysin–catalyzed condensation reaction of N–benzyloxycarbonyl–L–aspartic acid with L–phenylalanine methyl ester, 356–60
BENZYLPHOSPHONIUM
Electroorganic reactions. Part 17. The competition between cleavage and ylide formation in the cathodic reduction of benzyl–allyl–, cinnamyl–, and polyenylphosphonium salts, 1520–3
BENZYLTRIPHENYLPHOSPHONIUM
Electroorganic reactions. Part 17. The competition between cleavage and ylide formation in the cathodic reduction of benzyl–allyl–, cinnamyl–, and polyenylphosphonium salts, 1520–3
BICYCLIC
Bicyclic phosphanes: synthesis, stereochemistry, and conformation, 19–25
BICYCLOHEXANOL
Cyclopropane ring opening of bicyclo[3.1.0]hexan–3–ols in fluorosulfuric acid, 948–52
BICYCLONONANE
Carbon–13 nuclear magnetic resonance spectra of 3,7–disubstituted bicyclo[3.3.1]nonanes: conformation and through–space interaction, 90–3
BICYCLOOCTANE
The synthesis of 1,4–disubstituted bicyclo[2.2.2]octanes exhibiting wide–range, enantiotropic nematic phases, 26–31
BICYCLOOCTANONE
Photoelectron spectroscopic studies of some 2–azabicyclo[2.2.2]octan–5–one and bicyclo[2.2.2]octanone derivatives, 991–4
BILIRUBIN
Nuclear magnetic resonance studies of the conformation of bilirubin and its derivatives in solution, 1374–83
BINAPHTHYL
The crystal and molecular structure of R–(–)–1,1'–binaphthyl: the conformational isomerism and a comparison of the chiral with the racemic packing mode, 167–70
The crystal structure, absolute configuration, and circular dichroism of (R)–$(-)_{546}$–8,8'–(2–thiatrimethylene)–1,1'–binaphthyl, 1621–8
BINDING
Alteration of the cis:trans isomer ratio in N–methylformamide using lanthanide shift reagents. Determination of the equilibrium constants for complexation, 1481–5
BIPHENYL
Mechanisms for aromatic photocyanation: naphthalene and biphenyl, 713–19
BIPHENYLALKYLBICYCLOOCTANE
The synthesis of 1,4–disubstituted bicyclo[2.2.2]octanes exhibiting wide–range, enantiotropic nematic phases, 26–31
BIPYRIDYL
Enthalpies of solution of 2,2'–bipyridyl, 1,10–phenanthroline, and 1,10–phenanthroline monohydrate, 366–8
BISETHYLENEDIOXYTRIPYRIDINATRIOXACYCLO–

DODECAPHANE
The crystal structures of a ketone and related acetal macrocycle containing 2,6–pyridino and polyether subunits, 877–82
BISHYDROXYETHYL
The crystal structures of a macrocycle containing 2,6–pyridino and piperazino subunits and of the tetrachlorocobaltate(II) salt of its diprotonated cation, 331–5
BISHYDROXYETHYLPIPERAZINE
The crystal structures of a macrocycle containing 2,6–pyridino and piperazino subunits and of the tetrachlorocobaltate(II) salt of its diprotonated cation, 331–5
BISMETHOXYCARBONYL
Diastereoisomeric charge–transfer complexes. Measurement of thermodynamic constants by proton nuclear magnetic resonance spectroscopy, 350–2
BISMETHOXYCARBONYLHELICENE
Diastereoisomeric charge–transfer complexes. Measurement of thermodynamic constants by proton nuclear magnetic resonance spectroscopy, 350–2
BIVERDAZYL
Verdazyls. Part 30. N–1,N–1'–linked biverdazyls (bis–1,2,3,4–tetrahydro–s–tetrazin–1–yls) with a [2.2]–paracyclophanylene bridge, 896–900
BOND
Intramolecular hydrogen bonding and molecular conformations of nucleosides: uridine derivatives, 82–9
Crystal and molecular structures of butan–2–one p–nitrophenylhydrazone, propanal 2,4–dinitrophenylhydrazone, dimethyl 2–oxopropanedioate phenylhydrazone, and dimethyl 2–oxopropanedioate 2,4–dinitrophenylhydrazone: hydrogen bonding and bond order in phenylhydrazones, 155–60
Solid–state transformations and crystal structure analysis of α– and β–o–acetamidobenzamide, 233–8
Cope interconversions of the 9–methoxy–endo–tricyclo[4.2.1.$0^{2,5}$]non–a–3,7–dienyl cation and its [4.3.0.$0^{2,5}$] tautomer. Evidence of enhanced ionic stability by delocalization of neighboring σ bonds 457–63
Thermochemical bond dissociation energies of carbon–magnesium bonds, 464–7
The separation of polar and steric effects. Part 15. Kinetics of the reactions of benzoic acid and of ortho–substituted benzoic acids with diazodiphenylmethane in various aprotic solvents, 720–4
Complex formation between guanidinium nitrate and 1,4,7,10,13,16–hexaoxacyclooctadecane (18–crown–6). Crystal structure of the hydrogen–bonded 2:1 complex, 1025–30
Structural studies of some serrulatane diterpenes, 1467–72
1,8–Dimorpholinonaphthalene: proton transfer reactions, 1566–71
BONDING
Linear solvation energy relationship. Part 11. An analysis of nitrogen–15 solvent shifts in amides, 353–5
BRIDGED
Crystal structure of two bridged macrobicyclic polyethers, 1,5,12,16,23,26,29–heptaoxa[$7^{3,14}$][5.5]orthocyclophane and 1,5,12,16,23,26,29,32–octaoxa[$10^{3,14}$][5.5]orthocyclophane, 12–18
BROENSTED
Linear free energy relationships in the thiophene series. Part 2. The kinetics of the reactions of some 2–bromo–3–nitro–5–X–thiophenes with substituted anilines in methanol, 388–92
Spontaneous and base–catalyzed elimination from 1–ferrocenylalkyl cations, 924–30
BROMIDE
Thermochemical bond dissociation energies of carbon–magnesium bonds, 464–7
The relative efficiencies of a number of nitrite traps at different acidities and bromide ion concentrations, 699–702
Synthesis, stereochemistry, and crystal and molecular structure of 4–bromo–1,2,2,3–tetramethyl–1–phenylphosphetanium bromide, 1138–42
Routes to 3–bromoflavanone from erythro–2'–hydroxychalcone dibromide: spectral and kinetic evidence for the dominating role of elimination–addition sequences via (E)– and (Z)–α–bromo–2'–hydroxychalcones, 1367–73
BROMINATION
Electrophilic substitution with rearrangement. Part 9. Dienones derived from brominations of o–, m–, and p–cresol, 32–41
Intramolecular catalysis in the enolization of β–piperidinopropiophenone and its methiodide derivative, 1351–7
BROMO
Electrophilic substitution with rearrangement. Part 9. Dienones derived from brominations of o–, m–, and p–cresol, 32–41
Synthesis, stereochemistry, and crystal and molecular structure of 4–bromo–1,2,2,3–tetramethyl–1–phenylphosphetanium bromide, 1138–42
Routes to 3–bromoflavanone from erythro–2'–hydroxychalcone dibromide: spectral and kinetic evidence for the dominating role of elimination–addition sequences via (E)– and (Z)–α–bromo–2'–hydroxychalcones, 1367–73
BROMOALKANE
The effect of electrochemically generated positive bromine species in acetonitrile on the cleavage of carbon–bromine and carbon–chlorine bonds, 336–40
BROMOBENZENESULFONATE
α–, β–, and γ–Deuterium isotope effects in the solvolysis of octan–2–yl p–bromobenzenesulfonate in 88% aqueous trifluoroethanol and 83% aqueous hexafluoroisopropyl alcohol, 985–90
BROMOFLAVANONE
Routes to 3–bromoflavanone from erythro–2'–hydroxychalcone dibromide: spectral and kinetic evidence for the dominating role of elimination–addition sequences via (E)– and (Z)–α–bromo–2'–hydroxychalcones, 1367–73
BROMOHYDROXYCHALCONE
Routes to 3–bromoflavanone from erythro–2'–hydroxychalcone dibromide: spectral and kinetic evidence for the dominating role of elimination–addition sequences via (E)– and (Z)–α–bromo–2'–hydroxychalcones, 1367–73
BROMOMETHYLCYCLOHEXADIENONE
Electrophilic substitution with rearrangement. Part 9. Dienones derived from brominations of o–, m–, and p–cresol, 32–41
BROMOMETHYLCYCLOPENTENE
Synthesis, stereochemistry, and molecular and crystal structure of exo–3–phenyl–3–phosphabicyclo[3.2.1]oct–6–ene 3–oxide, 1000–4
BROMONITROTHIOPHENE
Linear free energy relationships in the thiophene series. Part 2. The kinetics of the reactions of some 2–bromo–3–nitro–5–X–thiophenes with substituted anilines in methanol, 388–92
BROMONIUM
The effect of electrochemically generated positive bromine species in acetonitrile on the cleavage of carbon–bromine and carbon–chlorine bonds, 336–40
BROMOPHENOL
Electrophilic substitution with rearrangement. Part 9. Dienones derived from brominations of o–, m–, and p–cresol, 32–41
BROMOTETRAMETHYLPHENYLPHOSPHETANIUM
Synthesis, stereochemistry, and crystal and molecular structure of 4–bromo–1,2,2,3–tetramethyl–1–phenylphosphetanium bromide, 1138–42
BRUCEOL
Structural studies in the bruceol system, 583–9
BUTANONE
Crystal and molecular structures of butan–2–one p–nitrophenylhydrazone, propanal 2,4–dinitrophenylhydrazone, dimethyl 2–oxopropanedioate phenylhydrazone, and dimethyl 2–oxopropanedioate 2,4–dinitrophenylhydrazone: hydrogen bonding and bond order in phenylhydrazones, 155–60
Chemical ionization mass spectra of selected C_4H_8O compounds, 1544–53
BUTOXIDE
Isomerization of cis–1,2–diarylethylenes. Catalysis by selenium, methanesulfonic acid, and potassium tert–butoxide, 324–6
An electron spin resonance study of 3–oxypropenoyl radicals derived from glycidols, 1132–7
BUTOXYL
Reactions of oxygenated radicals in the gas phase. Part 8. Reactions of alkoxyl radicals with aldehydes and ketones, 1036–42
Electron spin resonance studies. Part 61. The generation and reactions of the tert–butoxyl radical in aqueous solution, 1392–400
BUTOXYPHOSPHORANYL
A laser flash photolysis study of tert–butoxyphosphoranyl radicals. Optical spectra and kinetics of formation, fragmentation, and rearrangement, 905–11
BUTYL
Photolysis and thermolysis of 3–n–butyl–3–phenyldiazirine, 53–7
Electron spin resonance studies of spin trapping. On the role of hydroxylamines and an oxaziridine in the formation of nitroxides following addition of hydroxyalkyl radicals to N–tert–butyl–α–phenylnitrone, 379–81

BUTYL(contd)
A laser flash photolysis study of tert–butoxyphosphoranyl radicals. Optical spectra and kinetics of formation, fragmentation, and rearrangement, 905–11
Electron spin resonance study of inversion and conformations in 1–hydroxycyclohexyl radicals, 1143–7
An analysis of the proton and carbon–13 nuclear magnetic resonance spectra of 3–tert–butylaminoacrolein and of glyoxal–tert–butylhydrazone, 1283–6
The effect of charge and of electron density on the nuclear magnetic resonance parameters of conjugated systems: some isoelectronic anions and cations, 1287–91
BUTYLAMINO
An analysis of the proton and carbon–13 nuclear magnetic resonance spectra of 3–tert–butylaminoacrolein and of glyoxal–tert–butylhydrazone, 1283–6
The effect of charge and of electron density on the nuclear magnetic resonance parameters of conjugated systems: some isoelectronic anions and cations, 1287–91
BUTYLAMINOACROLEIN
An analysis of the proton and carbon–13 nuclear magnetic resonance spectra of 3–tert–butylaminoacrolein and of glyoxal–tert–butylhydrazone, 1283–6
The effect of charge and of electron density on the nuclear magnetic resonance parameters of conjugated systems: some isoelectronic anions and cations, 1287–91
BUTYLBENZOQUINONE
Kinetics and mechanism of the oxidation of 3,5–di–tert–butyl–o–benzoquinone with hydrogen peroxide in aqueous methanol solution, 1176–9
BUTYLHYDRAZONE
An analysis of the proton and carbon–13 nuclear magnetic resonance spectra of 3–tert–butylaminoacrolein and of glyoxal–tert–butylhydrazone, 1283–6
The effect of charge and of electron density on the nuclear magnetic resonance parameters of conjugated systems: some isoelectronic anions and cations, 1287–91
BUTYLPHENYLDIAZIRINE
Photolysis and thermolysis of 3–n–butyl–3–phenyldiazirine, 53–7
BUTYLPHENYLFORMAZANYLPARACYCLOPHANE
Verdazyls. Part 30. N–1,N–1'–linked biverdazyls (bis–1,2,3,4–tetrahydro–s–tetrazin–1–yls) with a [2.2]–paracyclophanylene bridge, 896–900
BUTYLPHENYLNITRONE
Electron spin resonance studies of spin trapping. On the role of hydroxylamines and an oxaziridine in the formation of nitroxides following addition of hydroxyalkyl radicals to N–tert–butyl–α–phenylnitrone, 379–81
BUTYRALDEHYDE
Chemical ionization mass spectra of selected C_4H_8O compounds, 1544–53
CADMIUM
Preparation and spectroscopic properties of pure tetrabenzoporphyrins, 1005–9
CALCN
A theoretical investigation of the π–polarization mechanism. The importance of localized and extended polarization, 760–4
The stability of the carbenes from 1,2–dithiole and 1,3–dithiole in relation to the synthesis of 1,1',3,3'– and 1,1',2,2'–tetrathiafulvalenes, 1062–5
CARBAMATE
Ring–opening reactions of some 1–ethoxycarbonylaziridines with acetic acid in cyclohexane, 121–6
CARBANILIDE
Anodic oxidation of carboxamides. Part 3. The mechanism of anodic cyclization of N–methylcarbanilides, 1599–605
CARBAZOLE
Linear free energy relationships. Part 10. Synthesis, thermal, spectral, electrochemical, and hole transport (conduction) properties of some novel carbazole derivatives, 1267–73
CARBENE
The stability of the carbenes from 1,2–dithiole and 1,3–dithiole in relation to the synthesis of 1,1',3,3'– and 1,1',2,2'–tetrathiafulvalenes, 1062–5
CARBENOID
The stability of the carbenes from 1,2–dithiole and 1,3–dithiole in relation to the synthesis of 1,1',3,3'– and 1,1',2,2'–tetrathiafulvalenes, 1062–5
CARBOCATION
The reaction of CH_4^+, CH_3^+ and other simple carbocations with benzene in the gas phase, 838–41
CARBODIIMIDE
Electronic spectra and electronic structures of ketenimines and carbodiimides, 270–80
CARBOHYDRATE
A nondestructive reactivity index of carbohydrates. The hydroxy protonation rates in dimethyl sulfoxide, 1329–35
CARBON
Carbon–13 nuclear magnetic resonance spectra of 3,7–disubstituted bicyclo[3.3.1]nonanes: conformation and through–space interaction, 90–3
Barriers to intramolecular hydride transfers in some polycyclic hydroxyketones, 175–84
Assignment of the carbon–13 spectrum of vancomycin and its derivatives, 201–6
The crystal and molecular structure of 1,2,3,5–tetramethylbenzo[b]–thiophenium tetrafluoroborate and some theoretical calculations on the hypothetical 1H–thiophenium cation, 266–9
The effect of salt formation on the molecular structure and charge distribution in imines: the crystal and molecular structures and the ultraviolet, infrared, and the proton and carbon–13 nuclear magnetic resonance spectra of 2,6–dimethyl–4–(p–nitrophenylimino)pyran and its hydrobromide and methobromide salts, 303–9
The carbon–13 nuclear magnetic resonance substituent chemical shifts of 2–substituted indenes. Interpretation by a multivariate data analysis method, 403–8
Cope interconversions of the 9–methoxy–endo–tricyclo[4.2.1.$0^{2,5}$]non–a–3,7–dienyl cation and its [4.3.0.$0^{2,5}$] tautomer. Evidence of enhanced ionic stability by delocalization of neighboring σ bonds 457–63
Thermochemical bond dissociation energies of carbon–magnesium bonds, 464–7
Conformational studies by dynamic nuclear magnetic resonance. Part 20. Internal motion in hydrazones and related derivatives, 604–9
Carbon–13 substituent chemical shifts in the side–chain carbons of aromatic systems: the importance of π–polarization in determining chemical shifts, 753–9
Proton and carbon–13 nuclear magnetic resonance studies of substituted pyrimidines. Part 6. Carbon–13–proton coupling constants for some monoprotonated methyl– and aminopyrimidines, 783–8
Nuclear magnetic resonance study of the protonation of 2,6–dimethyl–γ–pyrone and related bases in superacid systems, 812–16
Naphthalene tetrachlorides and related compounds. Part 10. The carbon–13 nuclear magnetic resonance spectra of some naphthalene tetrachlorides, 1015–20
High–resolution carbon–13 nuclear magnetic resonance spectra of some solid trans–azobenzene and dyestuff species, 1031–5
Carbon–13 and proton nuclear magnetic resonance study of solvent effects on tautomerism in 1–aryl–3–methyltriazenes, 1161–5M.
The electronic structure of the s–indacenyl dianion. Structural assessment by nuclear magnetic resonance spectroscopy and molecular orbital calculations, 1260–3
The effect of charge and of electron density on the nuclear magnetic resonance parameters of conjugated systems: some isoelectronic anions and cations, 1287–91
Conformation and stereodynamics of 2–dialkylamino–1,3–dimethyl–2,3–dihydro–1H–1,3,2–benzodiazaphospholes. An experimental nuclear magnetic resonance, ultraviolet photoelectron, and theoretical MNDO investigation, 1411–16
The photochemistry of sulfoxides. A CIDNP study of carbon–sulfur bond cleavage paths, 1417–29
CARBOXYBENZOXAZINONE
Stepwise proton transfer in the acid–catalyzed hydrolysis of 3,1–benzoxazin–4–ones: electrostatic or hydrogen–bond stabilization of the conjugate acid, 590–6
CARBOXYLATE
Analysis of the dependence of acid dissociation constants on temperature, 447–56
CATALYSIS
Function micellar catalysis. Part 4. Catalysis of activated ester hydrolysis by surfactant systems as chymotrypsin models, 260–5
On the mechanism of the action of thermolysin: kinetic study of the thermolysin–catalyzed condensation reaction of N–benzyloxycarbonyl–L–aspartic acid with L–phenylalanine methyl ester, 356–60

CATALYSIS(contd)
Catalysis in aromatic nucleophilic substitution. Part 5. Reactions of piperidine with methyl 2–methoxy–3–nitrothiophene–5–carboxylate and 5–acetyl–2–methoxy–3–nitrothiophene, 642–4
Alkyl nitrites as nitrosating agents. Kinetics and mechanism of the reactions of propyl nitrite in propan–1–ol, 1021–4
Aroyl peroxides. Part 7. The effects of additives on the thermolysis of aroyl peroxides in arenes and the elimination of possible complications in the measurement of partial rate factors for phenylation, 1109–20
Radical–induced hydrogen exchange in the presence of reducing transition metal ions, 1230–3
CATALYST
1,8–Diacetylnaphthalene and its cyclization to 3–methyl–1H–phenalen–1–one, 58–61
General acid inhibition and the absence of deuterium isotope exchange in base catalyzed hydrolysis of 2,4–dinitrophenyl arylmethanesulfonate esters in aqueous solution, 65–71
The acid–catalyzed hydrolysis of episulfoxides, 132–9
Function micellar catalysis. Part 4. Catalysis of activated ester hydrolysis by surfactant systems as chymotrypsin models, 260–5
Isomerization of cis–1,2–diarylethylenes. Catalysis by selenium, methanesulfonic acid, and potassium tert–butoxide, 324–6
On the mechanism of the action of thermolysin: kinetic study of the thermolysin–catalyzed condensation reaction of N–benzyloxycarbonyl–L–aspartic acid with L–phenylalanine methyl ester, 356–60
Catalysis of N–nitrosation and diazotization by thiourea and thiocyanate ion, 361–5
Nonsupported and resin–supported oligo(oxyethylenes) as solid–liquid phase–transfer catalysts. Effect of chain length and head–group, 514–17
Stepwise proton transfer in the acid–catalyzed hydrolysis of 3,1–benzoxazin–4–ones: electrostatic or hydrogen–bond stabilization of the conjugate acid, 590–6
The pyridine–catalyzed reaction of methanol with phenyl isocyanate in tetrachloromethane, 664–9
Anion activation by the bulky perhydrotribenzo[2.2.2]cryptand in aqueous–organic two–phase systems and in low polarity media. A comparison with the anionic reactivity induced by [2.2.2,C_{14}]cryptand, 821–4
Spontaneous and base–catalyzed elimination from 1–ferrocenylalkyl cations, 924–30
Kinetics of the reactions of phenyl 2,4,6–trinitrophenyl ether with piperidine, n–butylamine, aniline, benzylamine, and morpholine in benzene, 1105–7
Aroyl peroxides. Part 7. The effects of additives on the thermolysis of aroyl peroxides in arenes and the elimination of possible complications in the measurement of partial rate factors for phenylation, 1109–20
Radical–induced hydrogen exchange in the presence of reducing transition metal ions, 1230–3
The kinetics and mechanism of the hydrolysis of thiol esters in aqueous solution promoted by tetrachlorogold(III) ions, 1406–10
Thermal decomposition of diazodiphenylmethane catalyzed by sulfur compounds in the presence of oxygen, 1437–42
Kinetic deuterium solvent isotope effects on the general acid–catalyzed dissociation of metal cryptates, 1486–91
Mechanism of base–catalyzed hydrogen–deuterium exchange in thiazolium ion: evidence for the involvement of a tetrahedral intermediate, 1538–43
CATION
Reactions of 1,1–dialkoxyalkene radical cations in aqueous solution with OH^-, HPO_4^{2-}, and H_2O. Electron spin resonance spectroscopic, pulse conductometric, and product analytical studies, 143–54
The crystal and molecular structure of 1,2,3,5–tetramethylbenzo[b]–thiophenium tetrafluoroborate and some theoretical calculations on the hypothetical 1H–thiophenium cation, 266–9
Cope interconversions of the 9–methoxy–endo–tricyclo[4.2.1.$0^{2,5}$]nona–3,7–dienyl cation and its [4.3.0.$0^{2,5}$] tautomer. Evidence of enhanced ionic stability by delocalization of neighboring σ bonds 457–63
A theoretical investigation of the energy and structure of ion–molecule pairs in polar solvents. Part 2. Methanediazonium cation in water, 488–93
Kinetic hydrogen isotope effects in intermolecular hydride transfer from arylalkanes to 9–arylfluoren–9–yl cations, 684–91
Free radical studies by resonance Raman spectroscopy: phenothiazine, 10–methylphenothiazine, and phenoxazine radical cations, 852–9
Electron spin resonance studies. Part 60. Detection of radical–cations from vinyl sulfides: evidence for a cyclic structure, 1066–9
Model calculations of isotope effects. Part 5. Secondary hydrogen isotope effects in the solvolysis of isopropyl halides, 1316–24
Heterocyclic free radicals. Part 10. Phenothiazine cation radicals as probes of the inductive effect, 1492–500
The influence of crown ethers on the rate of intramolecular cation exchange involving the 5,12–dihydrotetracene radical anion, 1508–11
CD
Intramolecular hydrogen bonding and molecular conformations of nucleosides: uridine derivatives, 82–9
Optical rotatory dispersion and absolute configuration. Part 32. Circular dichroism and conformation of 3–hydroxypiperidines, 697–8
The circular dichroism of (–)–(S)–3–methylthian: a study of the electronic transitions and stereochemistry of cyclic sulfur derivatives, 1529–33
The crystal structure, absolute configuration, and circular dichroism of (R)–$(-)_{546}$–8,8'–(2–thiatrimethylene)–1,1'–binaphthyl, 1621–8
CELL
Photogalvanic cells. Part 14. The synthesis and characterization of disulfonated thionines, 794–800
CHAIN
Nonsupported and resin–supported oligo(oxyethylenes) as solid–liquid phase–transfer catalysts. Effect of chain length and head–group, 514–17
Induction of instantaneous chain reactions in the peroxodiphosphate–iron(II) system by selected substrates during a titrimetric procedure, 1280–2
CHALCOGENIDE
Dipole moment and helium(I) photoelectron spectroscopic studies of the conformation of di–2–pyridyl and diphenyl dichalcogenides R_2X_2 (X = S, Se, or Te), 281–5
CHALCONE
Configurations and conformations of the oximes, O–methyl oximes, and N–methylnitrones derived from chalcones, 860–5
Routes to 3–bromoflavanone from erythro–2'–hydroxychalcone dibromide: spectral and kinetic evidence for the dominating role of elimination–addition sequences via (E)– and (Z)–α–bromo–2'–hydroxychalcones, 1367–73
CHARGE
Diastereoisomeric charge–transfer complexes. Measurement of thermodynamic constants by proton nuclear magnetic resonance spectroscopy, 350–2
The reaction of CH_4^+, CH_3^+ and other simple carbocations with benzene in the gas phase, 838–41
The reactions of some common electrophiles, methyl, nitrosonium, nitronium and nitromethyl cations, with monosubstituted benzenes in the gas phase, 967–9
CHEMOSELECTIVITY
Reactions of nitroanisoles. Part 2. Reactions of 2,4– and 2,6–dinitroanisole with piperidines in benzene, 995–9
CHLORANIL
Aroyl peroxides. Part 7. The effects of additives on the thermolysis of aroyl peroxides in arenes and the elimination of possible complications in the measurement of partial rate factors for phenylation, 1109–20
CHLORIDE
Methanolysis (solvolysis) and synthesis of 4'–substituted 4–benzyloxybenzyl chlorides and some related compounds: comparisons with the corresponding benzoyl compounds, 100–3
Nucleophilic substitution at sulfonyl sulfur. Part 2. Hydrolysis and alcoholysis of aromatic sulfonyl chlorides, 438–41
The stabilities of Meisenheimer complexes. Part 24. Some reactions of 2,4,6–trinitrotoluene and 2,4,6–trinitrobenzyl chloride with bases, 526–32
The kinetics of the reactions of picryl chloride with some substituted anilines. Part 7. 2–Substituted and 2,5–disubstituted anilines, 883–5
CHLORINATION
Naphthalene tetrachlorides and related compounds. Part 9. Structures and reactions of some 2–methylnaphthalene tetrachlorides, 42–8
Selectivity in the halogenation of hexane by tertiary aminium radicals from the photodecomposition of N–haloammonium perchlorates, 545–52
The kinetics and mechanisms of aromatic halogen substitution. Part

CHLORINATION(contd)
35. The directive effect of the benzoyloxy substituent, 1629–32
CHLORINE
Oxidation of organic sulfides by chlorine and iodosylbenzene diacetate: kinetics and mechanism, 382–7
CHLORO
Naphthalene tetrachlorides and related compounds. Part 9. Structures and reactions of some 2-methylnaphthalene tetrachlorides, 42–8
The fluorescence of some dipolar N,N-dialkyl-4-(dichloro-1,3,5-triazinyl)anilines. Part 2. Temperature and solvent effects on the radiationless decay of an intramolecular charge-transfer excited singlet state, 918–23
CHLOROALKANE
The effect of electrochemically generated positive bromine species in acetonitrile on the cleavage of carbon–bromine and carbon–chlorine bonds, 336–40
CHLOROMETHYLTETALIN
Naphthalene tetrachlorides and related compounds. Part 9. Structures and reactions of some 2-methylnaphthalene tetrachlorides, 42–8
CHLOROMETHYLTETRALIN
Naphthalene tetrachlorides and related compounds. Part 9. Structures and reactions of some 2-methylnaphthalene tetrachlorides, 42–8
CHLORONITROBENZENE
The stabilities of Meisenheimer complexes. Part 26. The reactions of some aromatic nitro compounds with base in tert-butyl alcohol–water mixtures, 807–11
CHLORONITROBENZENEDIAZONIUM
Kinetics and intermediates in the several forward and reverse reactions of nitro-substituted arenediazonium ions with hydroxide ion, 1221–9
CHLOROPHENYL
The kinetics and mechanism of the spontaneous hydrolysis of 4-chlorophenyl isocyanate in diethyl ether solution, 901–4
CHLOROPHENYLIMINODIOXATHIAZOCINE
Crystal and molecular structure of an eight-membered cyclic imidosulfite, 2-(2,4,6-trichlorophenylimino)perhydro-1,3,2,6-dioxathiazocine, 1554–7
CHLOROPYRIDINE
The crystal structures of a macrocycle containing 2,6-pyridino and piperazino subunits and of the tetrachlorocobaltate(II) salt of its diprotonated cation, 331–5
CHLOROTRIAZINE
Organic peroxides. Part 12. The preparation and properties of some triazinyl peroxides, 1512–19
CHLOROTRIAZINYL
The fluorescence of some dipolar N,N-dialkyl-4-(dichloro-1,3,5-triazinyl)anilines. Part 2. Temperature and solvent effects on the radiationless decay of an intramolecular charge-transfer excited singlet state, 918–23
CHROMANOL
The hydrogen-stretching absorptions and conformations of tetralin-1-ol, chroman-4-ol, thiochroman-4-ol, and indan-1-ol derivatives, 944–7
CHROMATIC
Statistical analysis of solvatochromic shift data, 104–9
CHYMOTRYPSIN
Function micellar catalysis. Part 4. Catalysis of activated ester hydrolysis by surfactant systems as chymotrypsin models, 260–5
CIDNP
The photochemistry of sulfoxides. A CIDNP study of carbon–sulfur bond cleavage paths, 1417–29
CINNAMATE
Electrophilic aromatic substitution. Part 25. The nitration in aqueous sulfuric acid of some cinnamic acids and other styrene derivatives, 842–7
CINNAMYL
The photochemistry of sulfoxides. A CIDNP study of carbon–sulfur bond cleavage paths, 1417–29
CLEAVAGE
The effect of electrochemically generated positive bromine species in acetonitrile on the cleavage of carbon–bromine and carbon–chlorine bonds, 336–40
Kinetics and mechanism of the reactions of primary amines with pyrylium cations, 571–5
Stepwise proton transfer in the acid-catalyzed hydrolysis of 3,1-benzoxazin-4-ones: electrostatic or hydrogen-bond stabilization of the conjugate acid, 590–6
An electron spin resonance study of pentadienyl and related radicals: homolytic fission of cyclobut-2-enylmethyl radicals, 633–41
Cyclopropane ring opening of bicyclo[3.1.0]hexan-3-ols in fluorosulfuric acid, 948–52
Opening of the cyclopropane ring of the thujan-3-ols in fluorosulfuric acid, 953–7
The ring-opening reactions of cyclobutylmethyl and cyclobutenylmethyl radicals, 970–4
The steric course of the reaction of ethylene oxide with hydrogen halides in the gas phase, 1336–40
CNDO
Electronic spectra and electronic structures of ketenimines and carbodiimides, 270–80
CNDO2
1,8-Diacetylnaphthalene and its cyclization to 3-methyl-1H-phenalen-1-one, 58–61
COBALT
Oxidation by cobalt(III) acetate. Part 3. Allylic oxidation of various olefins in acetic acid, 817–20
COENZYME
Leaving group effects in thiolester hydrolysis. Part 2. On the possibility of an elimination–addition (keten) mediated pathway in S-acetylcoenzyme A basic hydrolysis and acetyl transfer, 171–4
COMPD
A theoretical investigation of the π-polarization mechanism. The importance of localized and extended polarization, 760–4
Electrophilic aromatic substitution. Part 26. The kinetics and mechanism of nitration of some reactive benzene derivatives in aqueous phosphoric acid. The identification of steps rate-limited by nitronium ion formation and by diffusion, 848–51
Phenylhydrazone derivatives of Meldrum's acid: crystal and molecular structures of 2,2-dimethyl-1,3-dioxane-4,5,6-trione-5-(2-nitrophenylhydrazone) and 2,2-dimethyl-1,3-dioxane-4,5,6-trione-5-(2-chlorophenylhydrazone), 1454–8
Selective functionalization. Part 4. Proton nuclear magnetic resonance studies of the orientation of aromatic molecules by surfactant micelles, 1616–20
The kinetics and mechanisms of aromatic halogen substitution. Part 35. The directive effect of the benzoyloxy substituent, 1629–32
COMPLEXATION
Nuclear magnetic resonance investigations of iminium ion intermediates. Part 9. Multinuclear study of the reaction between Lewis acids and vinylogous amides, 912–17
Complexation between 3-methylorotic (3-methyluracil-6-carboxylic) acid dianion and divalent metal cations. The slow acid dissociation of transition metal complexes and its possible relevance to orotic acid phosphoribosylation, 1057–61
Kinetics of the reactions of aniline and 2,2,2-trifluoroethylamine with 1,3,5-trinitrobenzene in dimethyl sulfoxide and acetonitrile, and of 2,2,2-trifluoroethylamine with 1-fluoro- and 1-chloro-2,4-dinitrobenzenes in these solvents, 1201–5
CONDENSATION
On the mechanism of the action of thermolysin: kinetic study of the thermolysin-catalyzed condensation reaction of N-benzyloxycarbonyl-L-aspartic acid with L-phenylalanine methyl ester, 356–60
Stereochemistry of addition to the carbonyl group. Part 17. Study of the factors affecting asymmetric induction in condensation reactions of methyl- and phenylmagnesium bromide with chiral carbonyl compounds, 597–603
The structures of the products of three condensation reactions: crystal and molecular structures of 5,6-dihydrothiazolo[2,3-c][1,2,4]thiadiazol-3-one, 6β-(1-ethyl-1-hydroxypropyl)-5α-phenyl-2,3,5,6-tetrahydroimidazo[2,1-b]thiazole, and 5,5-diphenyl-2,3-dihydroimidazo[2,1-b]thiazol-6(5H)-one, 789–93
Linear free energy relationships. Part 10. Synthesis, thermal, spectral, electrochemical, and hole transport (conduction) properties of some novel carbazole derivatives, 1267–73
CONDENSED
Conformational behavior of organic carbonyl compounds. Part 2. Aldehydes and acetyl derivatives of condensed aromatic hydrocarbons, 228–32
CONFIGURATION
Naphthalene tetrachlorides and related compounds. Part 9. Structures and reactions of some 2-methylnaphthalene tetrachlorides, 42–8
The crystal and molecular structure of 1,2,3,5-tetramethylbenzo[b]-thiophenium tetrafluoroborate and some theoretical calculations

CONFIGURATION(contd)
on the hypothetical 1H–thiophenium cation, 266–9
Structural studies of some hydroxyeriobrucinol derivatives, 576–82
Structural studies in the bruceol system, 583–9
The determination, by proton nuclear magnetic resonance studies, of some stereochemical features in the alkaloids isocorymine, erinine, erinicine, and eripine, 725–9
Configurations and conformations of the oximes, O–methyl oximes, and N–methylnitrones derived from chalcones, 860–5
The electronic structure of the s–indacenyl dianion. Structural assessment by nuclear magnetic resonance spectroscopy and molecular orbital calculations, 1260–3
An analysis of the proton and carbon–13 nuclear magnetic resonance spectra of 3–tert–butylaminoacrolein and of glyoxal–tert–butylhydrazone, 1283–6
Dipole moments of derivatives of 4–phenylazo–N,N–diethylaniline and of 9–phenylazojulolidine (9–phenylazo–2,3,6,7–tetrahydro–1H,5H–benzo[ij]quinolizine), 1292–4
The crystal structure, absolute configuration, and circular dichroism of (R)–(−)$_{546}$–8,8'–(2–thiatrimethylene)–1,1'–binaphthyl, 1621–8
CONFOMATION
Bicyclic phosphanes: synthesis, stereochemistry, and conformation, 19–25
CONFORMATION
Bicyclic phosphanes: synthesis, stereochemistry, and conformation, 19–25
Naphthalene tetrachlorides and related compounds. Part 9. Structures and reactions of some 2–methylnaphthalene tetrachlorides, 42–8
Intramolecular hydrogen bonding and molecular conformations of nucleosides: uridine derivatives, 82–9
Carbon–13 nuclear magnetic resonance spectra of 3,7–disubstituted bicyclo[3.3.1]nonanes: conformation and through–space interaction, 90–3
Conformation and photoelectron spectra of 2–(2–furyl)pyrrole and 2–(2–thienyl)pyrrole, 127–31
The crystal and molecular structure of R–(−)–1,1'–binaphthyl: the conformational isomerism and a comparison of the chiral with the racemic packing mode, 167–70
Conformational behavior of organic carbonyl compounds. Part 2. Aldehydes and acetyl derivatives of condensed aromatic hydrocarbons, 228–32
Solid–state transformations and crystal structure analysis of α– and β–o–acetamidobenzamide, 233–8
Dipole moment and helium(I) photoelectron spectroscopic studies of the conformation of di–2–pyridyl and diphenyl dichalcogenides R_2X_2 (X = S, Se, or Te), 281–5
Electron spin resonance and molecular orbital study of radicals in irradiated fluoro–derivatives, 425–31
Conformational analysis of 2– and 3–phosphoglyceric acids by proton and carbon–13 nuclear magnetic resonance spectroscopy, 494–9
The conformation of 4–acetylpyridine determined from proton and deuterium nuclear magnetic resonance spectra of a nematic phase 540–4
Vibrational spectroscopy and conformations of 2–alkoxycarbonyl–3–aminoacrylic esters, 561–70
Structural studies of some hydroxyeriobrucinol derivatives, 576–82
Conformational studies by dynamic nuclear magnetic resonance. Part 20. Internal motion in hydrazones and related derivatives, 604–9
An electron spin resonance study of pentadienyl and related radicals: homolytic fission of cyclobut–2–enylmethyl radicals, 633–41
Optical rotatory dispersion and absolute configuration. Part 32. Circular dichroism and conformation of 3–hydroxypiperidines, 697–8
Reactions of the methylthiyl radical with unsaturated cycloalkanes: abstraction, addition, and rearrangement, 703–7
Conformational analysis of tryptophan in solution using nuclear magnetic resonance methods, 730–5
Determination of ring inversion barriers for 1H,3H–naphtho[1,8–cd]pyran and its methyl substituted derivatives by molecular mechanics calculations and dynamic nuclear magnetic resonance spectroscopy, 741–6
The wavelength– and solvent–dependent photochemistry of 1,1–dicyano–2–methyl–4–phenylbut–1–ene; reaction from two excited states, 774–82
Configurations and conformations of the oximes, O–methyl oximes, and N–methylnitrones derived from chalcones, 860–5
The crystal structures of a ketone and related acetal macrocycle containing 2,6–pyridino and polyether subunits, 877–82
The hydrogen–stretching absorptions and conformations of tetralin–1–ol, chroman–4–ol, thiochroman–4–ol, and indan–1–ol derivatives, 944–7
X–ray crystallographic determination of the molecular structures of cis– and trans–isomers of (±)–5–fluorocyclophosphamide (2–[bis–(2–chloroethyl)amino]–5–fluorotetrahydro–2H–1,3,2–oxazaphosphorine 2–oxide), 980–4
Synthesis, stereochemistry, and molecular and crystal structure of exo–3–phenyl–3–phosphabicyclo[3.2.1]oct–6–ene 3–oxide, 1000–4
Synthesis, stereochemistry, and crystal and molecular structure of 4–bromo–1,2,2,3–tetramethyl–1–phenylphosphetanium bromide, 1138–42
Electron spin resonance study of inversion and conformations in 1–hydroxycyclohexyl radicals, 1143–7
Conformational equilibrium in 1,2–diarylethylenes manifested in their emission in solution. Part 5. 2,6–Distyrylnaphthalene and related compounds, 1264–6
An analysis of the proton and carbon–13 nuclear magnetic resonance spectra of 3–tert–butylaminoacrolein and of glyoxal–tert–butylhydrazone, 1283–6
Conformations and barriers to inversion of seven–membered cyclic oxamides and their monothio and dithio analogs: a study by dynamic nuclear magnetic resonance spectroscopy and molecular mechanics, 1344–50
Nuclear magnetic resonance studies of the conformation of bilirubin and its derivatives in solution, 1374–83
Conformation and stereodynamics of 2–dialkylamino–1,3–dimethyl–2,3–dihydro–1H–1,3,2–benzodiazaphospholes. An experimental nuclear magnetic resonance, ultraviolet photoelectron, and theoretical MNDO investigation, 1411–16
Conformational studies by dynamic nuclear magnetic resonance spectroscopy. Part 21. Structure, conformation, and stereodynamics of sulfinylhydrazines, 1449–53
Structural studies of some serrulatane diterpenes, 1467–72
Alteration of the cis:trans isomer ratio in N–methylformamide using lanthanide shift reagents. Determination of the equilibrium constants for complexation, 1481–5
Crystal and molecular structure of an eight–membered cyclic imidosulfite, 2–(2,4,6–trichlorophenylimino)perhydro–1,3,2,6–dioxathiazocine, 1554–7
CONST
Analysis of the dependence of acid dissociation constants on temperature, 447–56
First thermodynamic dissociation constants of barbituric acid derivatives in water at 25°C. Part 3. 5,5–Alkylenebarbituric acid derivatives. A comparison with 5,5–dialkylbarbituric acids, and with mono– and dicarboxylic acids, 481–7
Electrophilic aromatic substitution. Part 28. Rate factors for protiodetritiation of all positions of hexahelicene (benzo[c]naphtho[1,2–g]phenanthrene): the reactivity of bent benzene rings, 675–83
Complexation between 3–methylorotic (3–methyluracil–6–carboxylic) acid dianion and divalent metal cations. The slow acid dissociation of transition metal complexes and its possible relevance to orotic acid phosphoribosylation, 1057–61
Free radical reactions in solution. Part 6. Thermal decomposition of substituted dibenzyl mercurials in solution. An improved σ• scale 1121–6
Dipole moments of derivatives of 4–phenylazo–N,N–diethylaniline and of 9–phenylazojulolidine (9–phenylazo–2,3,6,7–tetrahydro–1H,5H–benzo[ij]quinolizine), 1292–4
Ionization constants of 3–substituted propiolic acids in water, 1341–3
Alteration of the cis:trans isomer ratio in N–methylformamide using lanthanide shift reagents. Determination of the equilibrium constants for complexation, 1481–5
Heterocyclic free radicals. Part 10. Phenothiazine cation radicals as probes of the inductive effect, 1492–500
COPE
Cope interconversions of the 9–methoxy–endo–tricyclo[4.2.1.$0^{2,5}$]non–3,7–dienyl cation and its [4.3.0.$0^{2,5}$] tautomer. Evidence of enhanced ionic stability by delocalization of neighboring σ bonds 457–63

COPPER
Photocyclization of aryl halides. Part 2. The upper excited state reactivity of 3–(2–haloanilino)–1,3–diphenylprop–2–enones: hydrogen–bonded configurational lock in photosynthesis, 1010–14
COUPLING
Proton and carbon–13 nuclear magnetic resonance studies of substituted pyrimidines. Part 6. Carbon–13–proton coupling constants for some monoprotonated methyl– and aminopyrimidines, 783–8
Photogalvanic cells. Part 14. The synthesis and characterization of disulfonated thionines, 794–800
Verdazyls. Part 30. N–1,N–1'–linked biverdazyls (bis–1,2,3,4–tetrahydro–s–tetrazin–1–yls) with a [2.2]–paracyclophanylene bridge, 896–900
Unstable intermediates. Part 194. Alkyl radical–halide ion adducts: an electron spin resonance study of the radiolysis of a range of alkyl bromides and iodides, 1180–5
Phenylhydrazone derivatives of Meldrum's acid: crystal and molecular structures of 2,2–dimethyl–1,3–dioxane–4,5,6–trione–5–(2–nitrophenylhydrazone) and 2,2–dimethyl–1,3–dioxane–4,5,6–trione–5–(2–chlorophenylhydrazone), 1454–8
CRAFTS
The Friedel–Crafts acetylatin of naphthalene. Evidence for concurrent second– and third–order reactions, 376–8
Acetyl exchange between acetyl chloride and sterically hindered aryl ketones under Friedel–Crafts conditions, 830–7
CRESOL
Electrophilic substitution with rearrangement. Part 9. Dienones derived from brominations of o–, m–, and p–cresol, 32–41
Gas–phase methylation of phenol and anisole by dimethylhalonium ions, 1430–6
CROWN
The crystal structure of 1,4,7,14,17,20,28,35–octaoxa[^{3,29}.^{2}^{18,34}][7.-7]orthocyclophane and its multihydrated complex with potassium chloride, 1–11
Crystal structure of two bridged macrobicyclic polyethers, 1,5,12,16,23,26,29–heptaoxa[^{7,14}][5.5]orthocyclophane and 1,5,12,16,23,26,29,32–octaoxa[$10^{3,14}$][5.5]orthocyclophane, 12–18
Complex formation between guanidinium nitrate and 1,4,7,10,13,16–hexaoxacyclooctadecane (18–crown–6). Crystal structure of the hydrogen–bonded 2:1 complex, 1025–30
Association of crown ethers with anilinium ions in methanol solution and its influence on acid–base equilibriums, 1252–5
Linewidth alternation in the electron spin resonance spectrum of the fluorene radical anion in the presence of dibenzo crown ethers, 1384–91
The influence of crown ethers on the rate of intramolecular cation exchange involving the 5,12–dihydrotetracene radical anion, 1508–11
CRYPTAND
Anion activation by the bulky perhydrotribenzo[2.2.2]cryptand in aqueous–organic two–phase systems and in low polarity media. A comparison with the anionic reactivity induced by [2.2.2,C_{14}]cryptand, 821–4
CRYPTATE
Kinetic deuterium solvent isotope effects on the general acid–catalyzed dissociation of metal cryptates, 1486–91
CRYSTAL
The crystal structure of 1,4,7,14,17,20,28,35–octaoxa[^{3,29}.^{2}^{18,34}][7.-7]orthocyclophane and its multihydrated complex with potassium chloride, 1–11
Crystal structure of two bridged macrobicyclic polyethers, 1,5,12,16,23,26,29–heptaoxa[^{7,14}][5.5]orthocyclophane and 1,5,12,16,23,26,29,32–octaoxa[$10^{3,14}$][5.5]orthocyclophane, 12–18
The synthesis of 1,4–disubstituted bicyclo[2.2.2]octanes exhibiting wide–range, enantiotropic nematic phases, 26–31
Crystal and molecular structures of butan–2–one p–nitrophenylhydrazone, propanal 2,4–dinitrophenylhydrazone, dimethyl 2–oxopropanedioate phenylhydrazone, and dimethyl 2–oxopropanedioate 2,4–dinitrophenylhydrazone: hydrogen bonding and bond order in phenylhydrazones, 155–60
The crystal and molecular structure of R–(–)–1,1'–binaphthyl: the conformational isomerism and a comparison of the chiral with the racemic packing mode, 167–70
Solid–state transformations and crystal structure analysis of α– and β–o–acetamidobenzamide, 233–8
The crystal and molecular structure of 1,2,3,5–tetramethylbenzo[b]–thiophenium tetrafluoroborate and some theoretical calculations on the hypothetical 1H–thiophenium cation, 266–9
The effect of salt formation on the molecular structure and charge distribution in imines: the crystal and molecular structures and the ultraviolet, infrared, and the proton and carbon–13 nuclear magnetic resonance spectra of 2,6–dimethyl–4–(p–nitrophenylimino)pyran and its hydrobromide and methobromide salts, 303–9
The crystal structures of a macrocycle containing 2,6–pyridino and piperazino subunits and of the tetrachlorocobaltate(II) salt of its diprotonated cation, 331–5
The characterization of 1,1–diphenylstannacyclopentane and 1,1,6,6–tetraphenyl–1,6–distannacyclodecane. An x–ray diffraction study of the distannacyclodecane, 369–75
Carbonyl n–π^* absorption enhancement in β–phenylketones: the molecular geometry of the 6–benzyl–2,6–dimethylcyclohexa–2,4–dienone Diels–Alder dimer and its photocage product, 442–6
Reaction of 4,6–O–benzylideneglycals with benzoic acid, triphenylphosphine, and diethyl azodicarboxylate and of the products with sodium methoxide. X–ray structure of 1–O–benzoyl–4,6–O–benzylidene–2–deoxy–3–O–methyl–α–D–arabinohexopyranose, $C_{21}H_{22}O_6$, 468–72
Crystal structure of 5,6–didehydrodibenzo[a,e]cyclooctene, 478–80
Structural studies of some hydroxyeriobrucinol derivatives, 576–82
Structural studies in the bruceol system, 583–9
The thermal elimination of iodine from some substituted α–iodonaphthalenes: a structural study, 610–27
Stereochemistry of a novel sesquiterpene lactone. X–ray determination of the structure of ursiniolide A monohydrate, 660–3
The structures of the products of three condensation reactions: crystal and molecular structures of 5,6–dihydrothiazolo[2,3–c][1,2,4]thiadiazol–3–one, 6β–(1–ethyl–1–hydroxypropyl)–5α–phenyl–2,3,5,6–tetrahydroimidazo[2,1–b]thiazole, and 5,5–diphenyl–2,3–dihydroimidazo[2,1–b]thiazol–6(5H)–one, 789–93
The crystal and molecular structure of (S)–(+)– and racemic 9,10–dihydrodibenzo[c,g]phenanthrene, 870–6
The crystal structures of a ketone and related acetal macrocycle containing 2,6–pyridino and polyether subunits, 877–82
X–ray crystallographic determination of the molecular structures of cis– and trans–isomers of (±)–5–fluorocyclophosphamide (2–[bis–(2–chloroethyl)amino]–5–fluorotetrahydro–2H–1,3,2–oxazaphosphorine 2–oxide), 980–4
Synthesis, stereochemistry, and molecular and crystal structure of exo–3–phenyl–3–phosphabicyclo[3.2.1]oct–6–ene 3–oxide, 1000–4
Complex formation between guanidinium nitrate and 1,4,7,10,13,16–hexaoxacyclooctadecane (18–crown–6). Crystal structure of the hydrogen–bonded 2:1 complex, 1025–30
Restricted rotation in methyl– and cyanomethyl–tris–(2,4,6–trimethylphenyl)phosphonium compounds. A proton nuclear magnetic resonance spectroscopic study. The crystal structure of cyanomethyltris–(2,4,6–trimethylphenyl)phosphonium tetraiodomercurate(II), 1099–104
Synthesis, stereochemistry, and crystal and molecular structure of 4–bromo–1,2,2,3–tetramethyl–1–phenylphosphetanium bromide, 1138–42
Unsymmetrically substituted furoxans. Part 6. 3–Nitro–4–phenylfuroxan: reaction with sodium methoxide and x–ray structural analysis, 1240–2
Conformational studies by dynamic nuclear magnetic resonance spectroscopy. Part 21. Structure, conformation, and stereodynamics of sulfinylhydrazines, 1449–53
Phenylhydrazone derivatives of Meldrum's acid: crystal and molecular structures of 2,2–dimethyl–1,3–dioxane–4,5,6–trione–5–(2–nitrophenylhydrazone) and 2,2–dimethyl–1,3–dioxane–4,5,6–trione–5–(2–chlorophenylhydrazone), 1454–8
Structural studies of some serrulatane diterpenes, 1467–72
Intramolecular [2+2] photoaddition of a 1,7–diene, 1473–80
Crystal and molecular structure of a photoisomer of an oxodipyrromethene: the E–isomer of 3,4–dimethyl–2,2'–pyrromethen–5(1H)–one, 1525–8
Crystal and molecular structure of an eight–membered cyclic imidosulfite, 2–(2,4,6–trichlorophenylimino)perhydro–1,3,2,6–dioxathiazocine, 1554–7
The heterogeneous thermal transformation of the yellow to the orange crystalline form of diethyl 2,5–diaminoterephthalate. X–ray crystal structures of the two forms, 1577–82
The heterogeneous thermal transformation of the orange diethyl N,N'–diphenyl–2,5–diaminoterephthalate–benzene complex to the red solvent–free compound. X–ray crystal structures of the two forms, 1583–90

CRYSTAL(contd)
The crystal structures of 1,5,12,16,23,26,29,32,35–nonaoxa[13.3.14]–[5.5]orthocyclophane and its complex with rubidium picrate, 1606–15
The crystal structure, absolute configuration, and circular dichroism of (R)–(−)$_{546}$–8,8'–(2–thiatrimethylene)–1,1'–binaphthyl, 1621–8
CYANATION
Mechanisms for aromatic photocyanation: naphthalene and biphenyl, 713–19
CYANO
The synthesis of 1,4–disubstituted bicyclo[2.2.2]octanes exhibiting wide–range, enantiotropic nematic phases, 26–31
CYANOFLUORENYLIDENEMETHANE
Electroorganic reactions. Part 17. The competition between cleavage and ylide formation in the cathodic reduction of benzyl–, allyl–, cinnamyl–, and polyenylphosphonium salts, 1520–3
CYANOMETHYL
Electrogeneration of cyanomethyl anion from phenylsulfonylacetonitrile and cyanomethyltrimesitylphosphonium iodide and the relative acidities of XCH_2CN (X = Ph_3P^+, Ph_3As^+, Mes_3P^+, or $PhSO_2$) versus acetic acid in acetonitrile, 1093–8
CYANOMETHYLARSONIUM
Electrogeneration of cyanomethyl anion from phenylsulfonylacetonitrile and cyanomethyltrimesitylphosphonium iodide and the relative acidities of XCH_2CN (X = Ph_3P^+, Ph_3As^+, Mes_3P^+, or $PhSO_2$) versus acetic acid in acetonitrile, 1093–8
CYANOMETHYLPHENYLBUTENE
The wavelength– and solvent–dependent photochemistry of 1,1–dicyano–2–methyl–4–phenylbut–1–ene; reaction from two excited states, 774–82
CYANOMETHYLPHOSPHONIUM
Electrogeneration of cyanomethyl anion from phenylsulfonylacetonitrile and cyanomethyltrimesitylphosphonium iodide and the relative acidities of XCH_2CN (X = Ph_3P^+, Ph_3As^+, Mes_3P^+, or $PhSO_2$) versus acetic acid in acetonitrile, 1093–8
CYANOMETHYLSULFONYLACETONITRILE
Electrogeneration of cyanomethyl anion from phenylsulfonylacetonitrile and cyanomethyltrimesitylphosphonium iodide and the relative acidities of XCH_2CN (X = Ph_3P^+, Ph_3As^+, Mes_3P^+, or $PhSO_2$) versus acetic acid in acetonitrile, 1093–8
CYANOMETHYLSULFONYLACTONITRILE
Electrogeneration of cyanomethyl anion from phenylsulfonylacetonitrile and cyanomethyltrimesitylphosphonium iodide and the relative acidities of XCH_2CN (X = Ph_3P^+, Ph_3As^+, Mes_3P^+, or $PhSO_2$) versus acetic acid in acetonitrile, 1093–8
CYANOMETHYLTRIMETHYLPHENYLPHOSPHONIUM
Restricted rotation in methyl– and cyanomethyl–tris–(2,4,6–trimethylphenyl)phosphonium compounds. A proton nuclear magnetic resonance spectroscopic study. The crystal structure of cyanomethyltris–(2,4,6–trimethylphenyl)phosphonium tetraiodomercurate(II), 1099–104
CYANOPHENYLALKYLBICYCLOOCTANE
The synthesis of 1,4–disubstituted bicyclo[2.2.2]octanes exhibiting wide–range, enantiotropic nematic phases, 26–31
CYCLALKYLDICARBOXYLATE
First thermodynamic dissociation constants of barbituric acid derivatives in water at 25°C. Part 3. 5,5–Alkylenebarbituric acid derivatives. A comparison with 5,5–dialkylbarbituric acids, and with mono– and dicarboxylic acids, 481–7
CYCLIC
Conformations and barriers to inversion of seven–membered cyclic oxamides and their monothio and dithio analogs: a study by dynamic nuclear magnetic resonance spectroscopy and molecular mechanics, 1344–50
The photochemistry of sulfoxides. A CIDNP study of carbon–sulfur bond cleavage paths, 1417–29
CYCLIZATION
1,8–Diacetylnaphthalene and its cyclization to 3–methyl–1H–phenalen–1–one, 58–61
Electrophilic substitution in naphthalenes: cyclization of naphthylbutanols of tetrahydrophenanthrene, 286–97
Photochromic heterocyclic fulgides. Part 3. The use of (E)–α–(2,5–dimethyl–3–furylethylidene)(isopropylidene)succinic anhydride as a simple convenient chemical actinometer, 341–3
Kinetics and mechanism of the reactions of primary amines with pyrylium cations, 571–5
Benzoquinone imines. Part 17. Kinetics and mechanism of the hydrolysis and cyclization of 2–aminoindophenols in aqueous solution, 886–9
Electron spin resonance studies. Part 60. Detection of radical–cations from vinyl sulfides: evidence for a cyclic structure, 1066–9
Anodic oxidation of carboxamides. Part 3. The mechanism of anodic cyclization of N–methylcarbanilides, 1599–605
CYCLOADDN
The type A zwitterion in cyclohexadienone photochemistry: chemical trapping and stereochemistry, 736–40
Intramolecular [2+2] photoaddition of a 1,7–diene, 1473–80
CYCLOADDUCT
The crystal structures of a macrocycle containing 2,6–pyridino and piperazino subunits and of the tetrachlorocobaltate(II) salt of its diprotonated cation, 331–5
CYCLOALKANE
Reactions of the methylthiyl radical with unsaturated cycloalkanes: abstraction, addition, and rearrangement, 703–7
CYCLOALKENE
Oxidation by cobalt(III) acetate. Part 3. Allylic oxidation of various olefins in acetic acid, 817–20
CYCLOBUTENYL
An electron spin resonance study of pentadienyl and related radicals: homolytic fission of cyclobut–2–enylmethyl radicals, 633–41
CYCLOBUTYL
The ring–opening reactions of cyclobutylmethyl and cyclobutenylmethyl radicals, 970–4
CYCLOBUTYLMETHYL
The ring–opening reactions of cyclobutylmethyl and cyclobutenylmethyl radicals, 970–4
CYCLOCONDENSATION
Bicyclic phosphanes: synthesis, stereochemistry, and conformation, 19–25
Mechanistic studies in the chemistry of urea. Part 8. Reactions of urea, 1–methylurea, and 1,3–dimethylurea with some acyloins and butane–2,3–dione (diacetyl) in acid solution, 310–16
Mechanistic studies in the chemistry of urea. Part 9. Reactions of 1,2–diaminoethane and related compounds with urea and N–alkylated ureas, 317–19
Mechanistic studies in the chemistry of urea. Part 10. Reaction of urea and 1,3–dimethylurea with cyclohexane–1,2–dione and of imidazolidin–2–one (ethyleneurea) with several α–diketones, 320–3
The crystal structures of a macrocycle containing 2,6–pyridino and piperazino subunits and of the tetrachlorocobaltate(II) salt of its diprotonated cation, 331–5
First thermodynamic dissociation constants of barbituric acid derivatives in water at 25°C. Part 3. 5,5–Alkylenebarbituric acid derivatives. A comparison with 5,5–dialkylbarbituric acids, and with mono– and dicarboxylic acids, 481–7
Verdazyls. Part 30. N–1,N–1'–linked biverdazyls (bis–1,2,3,4–tetrahydro–s–tetrazin–1–yls) with a [2.2]–paracyclophanylene bridge, 896–900
Synthesis, stereochemistry, and molecular and crystal structure of exo–3–phenyl–3–phosphabicyclo[3.2.1]oct–6–ene 3–oxide, 1000–4
Photocyclization of aryl halides. Part 2. The upper excited state reactivity of 3–(2–haloanilino)–1,3–diphenylprop–2–enones: hydrogen–bonded configurational lock in photosynthesis, 1010–14
CYCLOHEXADIENONE
Electrophilic substitution with rearrangement. Part 9. Dienones derived from brominations of o–, m–, and p–cresol, 32–41
Carbonyl n–π* absorption enhancement in β–phenylketones: the molecular geometry of the 6–benzyl–2,6–dimethylcyclohexa–2,4–dienone Diels–Alder dimer and its photocage product, 442–6
The type A zwitterion in cyclohexadienone photochemistry: chemical trapping and stereochemistry, 736–40
CYCLOHEXANEDIONE
Mechanistic studies in the chemistry of urea. Part 10. Reaction of urea and 1,3–dimethylurea with cyclohexane–1,2–dione and of imidazolidin–2–one (ethyleneurea) with several α–diketones, 320–3
CYCLOHEXANOL
Electron spin resonance study of inversion and conformations in 1–hydroxycyclohexyl radicals, 1143–7
CYCLOOCTADIENE
Small rings. Part 32. The gas phase kinetics, mechanism, and energy hypersurface for the thermolyses of syn– and anti–tricyclo[4.2.0.-

CYCLOOCTADIENE(contd)
$0^{2,5}$]octane, 1076–83
CYCLOPENTADIENE
The type A zwitterion in cyclohexadienone photochemistry: chemical trapping and stereochemistry, 736–40
CYCLOPENTADIENYL
Photolysis of the carbon–hydrogen bond in pentamethylcyclopentadiene. Properties of the pentamethylcyclopentadienyl radical, 692–6
CYCLOPENTADIENYLLITHIUM
The electron spin resonance spectrum of the fulvalene radical anion 747–50
CYCLOPENTAPHENANTHRENE
Electrophilic aromatic substitution. Part 29. Protiodetritiation of 4H–cyclopenta[def]phenanthrene: the substituent activation factor A_f, 1153–6
CYCLOPENTENIUM
Cyclopropane ring opening of bicyclo[3.1.0]hexan–3–ols in fluorosulfuric acid, 948–52
Opening of the cyclopropane ring of the thujan–3–ols in fluorosulfuric acid, 953–7
CYCLOPHANE
The crystal structure of 1,4,7,14,17,20,28,35–octaoxa[$2^{3,29}$,$2^{18,34}$][7.7]orthocyclophane and its multihydrated complex with potassium chloride, 1–11
Crystal structure of two bridged macrobicyclic polyethers, 1,5,12,16,23,26,29–heptaoxa[$7^{3,14}$][5.5]orthocyclophane and 1,5,12,16,23,26,29,32–octaoxa[$10^{3,14}$][5.5]orthocyclophane, 12–18
The radical anion of [2_4](1.2,4,5)cyclophane, 1298–303
CYCLOPHOSPHAMIDE
X–ray crystallographic determination of the molecular structures of cis– and trans–isomers of (±)–5–fluorocyclophosphamide (2–[bis–(2–chloroethyl)amino]–5–fluorotetrahydro–2H–1,3,2–oxazaphosphorine 2–oxide), 980–4
DECALIN
Electron spin resonance and molecular orbital study of radicals in irradiated fluoro–derivatives, 425–31
DECAY
Radical–anion intermediates. Part 8. The influence of a crown ether on the fluorene and 9–methylfluorene radical–anions, 1295–7
DECOMPN
Aromatic C–nitroso compounds. Thermodynamics and kinetics of the equilibrium between 2,6–dimethylnitrosobenzene and its trans–dimer, 256–9
Metastable decomposition of $C_3H_6O^{\bullet+}$ ions, 770–3
Free radical reactions in solution. Part 6. Thermal decomposition of substituted dibenzyl mercurials in solution. An improved $\sigma^{\bullet}$ scale 1121–6
Gas phase thermolyses. Part 4. Gas phase thermolyses of thietane 1–oxide and 1,2–oxathiolane 2–oxide. Evidence for the intermediacy of 1,2–oxathiolane, 1166–70
Linewidth alternation in the electron spin resonance spectrum of the fluorene radical anion in the presence of dibenzo crown ethers, 1384–91
Thermal decomposition of diazodiphenylmethane catalyzed by sulfur compounds in the presence of oxygen, 1437–42
DEGRDN
A kinetic analysis of the acidic degradation of penicillin G and confirmation of penicillamine as a degradation product, 1247–51
DEHYDRO
Ultraviolet spectra of dehydropeptides by double beam measurement, 1171–5
DEHYDROCHLORINATION
Naphthalene tetrachlorides and related compounds. Part 9. Structures and reactions of some 2–methylnaphthalene tetrachlorides, 42–8
DEHYDROPEPTIDE
Ultraviolet spectra of dehydropeptides by double beam measurement, 1171–5
DEHYDROXYLATION
Cyclopropane ring opening of bicyclo[3.1.0]hexan–3–ols in fluorosulfuric acid, 948–52
Opening of the cyclopropane ring of the thujan–3–ols in fluorosulfuric acid, 953–7
DEIODINATION
The thermal elimination of iodine from some substituted α–iodonaphthalenes: a structural study, 610–27
DELOCALIZATION
Carbon–13 nuclear magnetic resonance spectra of 3,7–disubstituted bicyclo[3.3.1]nonanes: conformation and through–space interaction, 90–3
Cope interconversions of the 9–methoxy–endo–tricyclo[4.2.1.$0^{2,5}$]nona–3,7–dienyl cation and its [4.3.0.$0^{2,5}$] tautomer. Evidence of enhanced ionic stability by delocalization of neighboring σ bonds 457–63
DEMETALLATION
Photocyclization of aryl halides. Part 2. The upper excited state reactivity of 3–(2–haloanilino)–1,3–diphenylprop–2–enones: hydrogen–bonded configurational lock in photosynthesis, 1010–14
DEOXYBRUCEOL
Structural studies in the bruceol system, 583–9
DEPROTONATION
Spontaneous and base–catalyzed elimination from 1–ferrocenylalkyl cations, 924–30
The effect of charge and of electron density on the nuclear magnetic resonance parameters of conjugated systems: some isoelectronic anions and cations, 1287–91
Kinetic and equilibrium solvent isotope effects on the deprotonation of a salicylate ion by hydroxide ion and general bases, 1304–8
DESILYLATION
Protiodesilylation of substituted 2–trimethylsilylthiophenes, 931–4
DETRITIATION
Electrophilic aromatic substitution. Part 28. Rate factors for protiodetritiation of all positions of hexahelicene (benzo[c]naphtho[1,2–g]phenanthrene): the reactivity of bent benzene rings, 675–83
DEUTERIOACETYLPYRIDINE
The conformation of 4–acetylpyridine determined from proton and deuterium nuclear magnetic resonance spectra of a nematic phase 540–4
DEUTERIUM
Studies on the mechanism of the enolization reaction of Grignard reagents and ketones. Part 2. Pseudo–first–order rate and deuterium isotope effect studies, 473–7
The conformation of 4–acetylpyridine determined from proton and deuterium nuclear magnetic resonance spectra of a nematic phase 540–4
Selectivity in the halogenation of hexane by tertiary aminium radicals from the photodecomposition of N–haloammonium perchlorates, 545–52
The pyridine–catalyzed reaction of methanol with phenyl isocyanate in tetrachloromethane, 664–9
Kinetic hydrogen isotope effects in intermolecular hydride transfer from arylalkanes to 9–arylfluoren–9–yl cations, 684–91
Spontaneous and base–catalyzed elimination from 1–ferrocenylalkyl cations, 924–30
α–, β–, and γ–Deuterium isotope effects in the solvolysis of octan–2–yl p–bromobenzenesulfonate in 88% aqueous trifluoroethanol and 83% aqueous hexafluoroisopropyl alcohol, 985–90
DIACETATE
Oxidation of organic sulfides by chlorine and iodosylbenzene diacetate: kinetics and mechanism, 382–7
DIALKOXY
Reactions of 1,1–dialkoxyalkene radical cations in aqueous solution with OH^-, HPO_4^{2-}, and H_2O. Electron spin resonance spectroscopic, pulse conductometric, and product analytical studies, 143–54
DIALKOXYALKENE
Reactions of 1,1–dialkoxyalkene radical cations in aqueous solution with OH^-, HPO_4^{2-}, and H_2O. Electron spin resonance spectroscopic, pulse conductometric, and product analytical studies, 143–54
DIAMINE
Mechanistic studies in the chemistry of urea. Part 9. Reactions of 1,2–diaminoethane and related compounds with urea and N–alkylated ureas, 317–19
DIAMINO
The heterogeneous thermal transformation of the yellow to the orange crystalline form of diethyl 2,5–diaminoterephthalate. X–ray crystal structures of the two forms, 1577–82
DIAMINOTEREPHTHALATE
The heterogeneous thermal transformation of the yellow to the orange crystalline form of diethyl 2,5–diaminoterephthalate. X–ray crystal structures of the two forms, 1577–82
DIANION
Electroorganic reactions. Part 17. The competition between cleavage and ylide formation in the cathodic reduction of benzyl–allyl–, cinnamyl–, and polyenylphosphonium salts, 1520–3

DIARYL
Studies on mesoionic compounds. Part 4. Protonation equilibriums of 2,3–diaryl–2H–tetrazolium–5–thiolates and 1,3,4–thiadiazolium–2–thiolates in aqueous perchloric acid solutions, 1534–7
DIARYLETHYLENE
Isomerization of cis–1,2–diarylethylenes. Catalysis by selenium, methanesulfonic acid, and potassium tert–butoxide, 324–6
DIARYLTETRAZOLIUMTHIOLATE
Studies on mesoionic compounds. Part 4. Protonation equilibriums of 2,3–diaryl–2H–tetrazolium–5–thiolates and 1,3,4–thiadiazolium–2–thiolates in aqueous perchloric acid solutions, 1534–7
DIASTEREOISOMERISM
Diastereoisomeric charge–transfer complexes. Measurement of thermodynamic constants by proton nuclear magnetic resonance spectroscopy, 350–2
DIAZEPINEDIONE
Conformations and barriers to inversion of seven–membered cyclic oxamides and their monothio and dithio analogs: a study by dynamic nuclear magnetic resonance spectroscopy and molecular mechanics, 1344–50
DIAZEPINYL
The electrochemical reduction of N,N'–disubstituted 6'–phenyl–2,3–dihydro–1,4–diazepinium salts: formation of bis(tetrahydrodiazepinyls) and a diimidazolidinylbutadiene, 801–6
DIAZIRINE
Photolysis and thermolysis of 3–n–butyl–3–phenyldiazirine, 53–7
DIAZO
Verdazyls. Part 30. N–1,N–1'–linked biverdazyls (bis–1,2,3,4–tetrahydro–s–tetrazin–1–yls) with a [2.2]–paracyclophanylene bridge, 896–900
DIAZODIPHENYLMETHANE
The separation of polar and steric effects. Part 14. Kinetics of the reactions of benzoic acid and of ortho–substituted benzoic acids with diazodiphenylmethane in various alcohols, 500–8
Thermal decomposition of diazodiphenylmethane catalyzed by sulfur compounds in the presence of oxygen, 1437–42
The influence of the solvent on organic reactivity. Part 4. Spectroscopic parameters of Lewis basicity and acidity of hydroxylic solvents. A comprehensive correlation analysis of the log k values for the reactions of diazodiphenylmethane with benzoic acid in aprotic and hydroxylic solvents at 37°C, 1572–6
DIAZOPHENYLMETHANE
The separation of polar and steric effects. Part 15. Kinetics of the reactions of benzoic acid and of ortho–substituted benzoic acids with diazodiphenylmethane in various aprotic solvents, 720–4
DIAZOTIZATION
Reactions of N–heteroaromatic bases with nitrous acid. Part 7. Kinetics of the nitrosation of secondary and of the diazotization of primary β–aminopyridines, 248–55
Catalysis of N–nitrosation and diazotization by thiourea and thiocyanate ion, 361–5
Alkyl nitrites as nitrosating agents. Kinetics and mechanism of the reactions of propyl nitrite in propan–1–ol, 1021–4
DIBENZO
Linewidth alternation in the electron spin resonance spectrum of the fluorene radical anion in the presence of dibenzo crown ethers, 1384–91
DIBENZOCROWN
Radical–anion intermediates. Part 8. The influence of a crown ether on the fluorene and 9–methylfluorene radical–anions, 1295–7
The influence of crown ethers on the rate of intramolecular cation exchange involving the 5,12–dihydrotetracene radical anion, 1508–11
DIBENZOCYCLOOCTENE
Crystal structure of 5,6–didehydrodibenzo[a,e]cyclooctene, 478–80
DIBENZOPHENANTHRENE
The crystal and molecular structure of (S)–(+)– and racemic 9,10–dihydrodibenzo[c,g]phenanthrene, 870–6
DIBENZYL
Free radical reactions in solution. Part 6. Thermal decomposition of substituted dibenzyl mercurials in solution. An improved $\sigma\cdot$ scale 1121–6
DIBENZYLMERCURY
Free radical reactions in solution. Part 6. Thermal decomposition of substituted dibenzyl mercurials in solution. An improved $\sigma\cdot$ scale 1121–6
DIBROMIDE
Routes to 3–bromoflavanone from erythro–2'–hydroxychalcone dibromide: spectral and kinetic evidence for the dominating role of elimination–addition sequences via (E)– and (Z)–α–bromo–2'–hydroxychalcones, 1367–73
DIBUTYL
Kinetics and mechanism of the oxidation of 3,5–di–tert–butyl–o–benzoquinone with hydrogen peroxide in aqueous methanol solution, 1176–9
DICATION
Complexation between 3–methylorotic (3–methyluracil–6–carboxylic) acid dianion and divalent metal cations. The slow acid dissociation of transition metal complexes and its possible relevance to orotic acid phosphoribosylation, 1057–61
DICHALCOGENIDE
Dipole moment and helium(I) photoelectron spectroscopic studies of the conformation of di–2–pyridyl and diphenyl dichalcogenides R_2X_2 (X = S, Se, or Te), 281–5
DICHLORO
The crystal structures of a macrocycle containing 2,6–pyridino and piperazino subunits and of the tetrachlorocobaltate(II) salt of its diprotonated cation, 331–5
DICHLOROPYRIDINE
The crystal structures of a macrocycle containing 2,6–pyridino and piperazino subunits and of the tetrachlorocobaltate(II) salt of its diprotonated cation, 331–5
DIETHYL
The heterogeneous thermal transformation of the yellow to the orange crystalline form of diethyl 2,5–diaminoterephthalate. X–ray crystal structures of the two forms, 1577–82
The heterogeneous thermal transformation of the orange diethyl N,N'–diphenyl–2,5–diaminoterephthalate–benzene complex to the red solvent–free compound. X–ray crystal structures of the two forms, 1583–90
DIMER
Carbonyl n–π^* absorption enhancement in β–phenylketones: the molecular geometry of the 6–benzyl–2,6–dimethylcyclohexa–2,4–dienone Diels–Alder dimer and its photocage product, 442–6
DIMERIZATION
Aromatic C–nitroso compounds. Thermodynamics and kinetics of the equilibrium between 2,6–dimethylnitrosobenzene and its trans–dimer, 256–9
Photolysis of the carbon–hydrogen bond in pentamethylcyclopentadiene. Properties of the pentamethylcyclopentadienyl radical, 692–6
Molecular interactions in nonaqueous solvents. Part 3. Kinetics and energetics of dimerization of a tetrasubstituted copper(II) phthalocyanine dye, 765–9
Flash photolysis study of phenyl–substituted phenols, quinones, and corresponding free radicals. Part 2. Dimerization of 2,6–diphenyl–4–methoxyphenoxyl radical in various solvents, 1234–6
DIMETHYL
Aromatic C–nitroso compounds. Thermodynamics and kinetics of the equilibrium between 2,6–dimethylnitrosobenzene and its trans–dimer, 256–9
Enhanced reactivities in substitution and elimination reactions in dimethyl sulfoximide, 432–7
Crystal and molecular structure of a photoisomer of an oxodipyrromethene: the E–isomer of 3,4–dimethyl–2,2'–pyrromethen–5(1H)–one, 1525–8
DIMETHYLFURYLETHYLIDENE
Photochromic heterocyclic fulgides. Part 3. The use of (E)–α–(2,5–dimethyl–3–furylethylidene)(isopropylidene)succinic anhydride as a simple convenient chemical actinometer, 341–3
DIMETHYLFURYLETHYLIDENEISOPROPYLIDENESUCCINIC
Photochromic heterocyclic fulgides. Part 3. The use of (E)–α–(2,5–dimethyl–3–furylethylidene)(isopropylidene)succinic anhydride as a simple convenient chemical actinometer, 341–3
DIMETHYLNITROPHENYLIMINOPYRAN
The effect of salt formation on the molecular structure and charge distribution in imines: the crystal and molecular structures and the ultraviolet, infrared, and the proton and carbon–13 nuclear magnetic resonance spectra of 2,6–dimethyl–4–(p–nitrophenylimino)pyran and its hydrobromide and methobromide salts, 303–9
DIMETHYLNITROSOBENZENE
Aromatic C–nitroso compounds. Thermodynamics and kinetics of the equilibrium between 2,6–dimethylnitrosobenzene and its trans–dimer, 256–9
DIMORPHOLINO
1,8–Dimorpholinonaphthalene: proton transfer reactions, 1566–71

DIMORPHOLINONAPHTHALENE
1,8–Dimorpholinonaphthalene: proton transfer reactions, 1566–71
DINITRO
Reactions of nitroanisoles. Part 2. Reactions of 2,4– and 2,6–dinitroanisole with piperidines in benzene, 995–9
DINITROANISOLE
Reactions of nitroanisoles. Part 2. Reactions of 2,4– and 2,6–dinitroanisole with piperidines in benzene, 995–9
DINITROPHENYLHYDRAZONE
Crystal and molecular structures of butan–2–one p–nitrophenylhydrazone, propanal 2,4–dinitrophenylhydrazone, dimethyl 2–oxopropanedioate phenylhydrazone, and dimethyl 2–oxopropanedioate 2,4–dinitrophenylhydrazone: hydrogen bonding and bond order in phenylhydrazones, 155–60
DIOXAAZAPHOSPHABICYCLOOCTANE
Bicyclic phosphanes: synthesis, stereochemistry, and conformation, 19–25
DIOXANE
Radical–induced hydrogen exchange in the presence of reducing transition metal ions, 1230–3
DIOXATHIAZOCINE
Crystal and molecular structure of an eight–membered cyclic imidosulfite, 2–(2,4,6–trichlorophenylimino)perhydro–1,3,2,6–dioxathiazocine, 1554–7
DIPHENYL
The characterization of 1,1–diphenylstannacyclopentane and 1,1,6,6–tetraphenyl–1,6–distannacyclodecane. An x–ray diffraction study of the distannacyclodecane, 369–75
The structures of the products of three condensation reactions: crystal and molecular structures of 5,6–dihydrothiazolo[2,3–c][1,2,4]thiadiazol–3–one, 6β–(1–ethyl–1–hydroxypropyl)–5α–phenyl–2,3,5,6–tetrahydroimidazo[2,1–b]thiazole, and 5,5–diphenyl–2,3–dihydroimidazo[2,1–b]thiazol–6(5H)–one, 789–93
Photocyclization of aryl halides. Part 2. The upper excited state reactivity of 3–(2–haloanilino)–1,3–diphenylprop–2–enones: hydrogen–bonded configurational lock in photosynthesis, 1010–14
DIPHENYLDIAMINOTEREPHTHALATE
The heterogeneous thermal transformation of the orange diethyl N,N'–diphenyl–2,5–diaminoterephthalate–benzene complex to the red solvent–free compound. X–ray crystal structures of the two forms, 1583–90
DIPHENYLMETHOXYPHENOXYL
Flash photolysis study of phenyl–substituted phenols, quinones, and corresponding free radicals. Part 2. Dimerization of 2,6–diphenyl–4–methoxyphenoxyl radical in various solvents, 1234–6
DIPHENYLSTANNACYCLOPENTANE
The characterization of 1,1–diphenylstannacyclopentane and 1,1,6,6–tetraphenyl–1,6–distannacyclodecane. An x–ray diffraction study of the distannacyclodecane, 369–75
DIPOLE
1,8–Diacetylnaphthalene and its cyclization to 3–methyl–1H–phenalen–1–one, 58–61
Dipole moment and helium(I) photoelectron spectroscopic studies of the conformation of di–2–pyridyl and diphenyl dichalcogenides R_2X_2 (X = S, Se, or Te), 281–5
Dipole moments of derivatives of 4–phenylazo–N,N–diethylaniline and of 9–phenylazojulolidine (9–phenylazo–2,3,6,7–tetrahydro–1H,5H–benzo[ij]quinolizine), 1292–4
DISPERSE
High–resolution carbon–13 nuclear magnetic resonance spectra of some solid trans–azobenzene and dyestuff species, 1031–5
DISPLACEMENT
The effect of changing the substituent in the sulfonyl group in base catalyzed hydrolysis of 2,4–dinitrophenyl arylmethanesulfonate esters in aqueous solution, 72–7
DISPROPORTIONATION
Photolysis of the carbon–hydrogen bond in pentamethylcyclopentadiene. Properties of the pentamethylcyclopentadienyl radical, 692–6
The reaction of CH_4^+, CH_3^+ and other simple carbocations with benzene in the gas phase, 838–41
The reactions of some common electrophiles, methyl, nitrosonium, nitronium and nitromethyl cations, with monosubstituted benzenes in the gas phase, 967–9
DISSOCN
Analysis of the dependence of acid dissociation constants on temperature, 447–56
Thermochemical bond dissociation energies of carbon–magnesium bonds, 464–7
First thermodynamic dissociation constants of barbituric acid derivatives in water at 25°C. Part 3. 5,5–Alkylenebarbituric acid derivatives. A comparison with 5,5–dialkylbarbituric acids, and with mono– and dicarboxylic acids, 481–7
A theoretical investigation of the energy and structure of ion–molecule pairs in polar solvents. Part 2. Methanediazonium cation in water, 488–93
Unimolecular reactions of isolated organic ions: some isomers of $C_6H_{14}^{\bullet+}$, 958–66
Complexation between 3–methylorotic (3–methyluracil–6–carboxylic) acid dianion and divalent metal cations. The slow acid dissociation of transition metal complexes and its possible relevance to orotic acid phosphoribosylation, 1057–61
Kinetic deuterium solvent isotope effects on the general acid–catalyzed dissociation of metal cryptates, 1486–91
DISTANNACYCLODECANE
The characterization of 1,1–diphenylstannacyclopentane and 1,1,6,6–tetraphenyl–1,6–distannacyclodecane. An x–ray diffraction study of the distannacyclodecane, 369–75
DISTYRYLNAPHTHALENE
Conformational equilibrium in 1,2–diarylethylenes manifested in their emission in solution. Part 5. 2,6–Distyrylnaphthalene and related compounds, 1264–6
DISUBSTITUTED
Carbon–13 substituent chemical shifts in the side–chain carbons of aromatic systems: the importance of π–polarization in determining chemical shifts, 753–9
DISUBSTITUTION
Carbon–13 substituent chemical shifts in the side–chain carbons of aromatic systems: the importance of π–polarization in determining chemical shifts, 753–9
DITERPENE
Structural studies of some serrulatane diterpenes, 1467–72
Intramolecular [2 + 2] photoaddition of a 1,7–diene, 1473–80
DITHIOLE
The stability of the carbenes from 1,2–dithiole and 1,3–dithiole in relation to the synthesis of 1,1',3,3'– and 1,1',2,2'–tetrathiafulvalenes, 1062–5
DURENE
Electrophilic aromatic substitution. Part 27. Chemical selectivities disguised by mass diffusion. Part 6. The kinetics of nitration in aqueous sulfuric acid of durene, nitrodurene, and nitroprehnitene. A comparison of the rates of nitration of methylnitrobenzenes in aqueous sulfuric acid with the corresponding rates from mixing–disguised nitrations with nitronium hexafluorophosphate in nitromethane based on a theoretical mixing–reaction model, 1358–66
DYE
Molecular interactions in nonaqueous solvents. Part 3. Kinetics and energetics of dimerization of a tetrasubstituted copper(II) phthalocyanine dye, 765–9
High–resolution carbon–13 nuclear magnetic resonance spectra of some solid trans–azobenzene and dyestuff species, 1031–5
DYNAMIC
Determination of ring inversion barriers for 1H,3H–naphtho[1,8–cd]pyran and its methyl substituted derivatives by molecular mechanics calculations and dynamic nuclear magnetic resonance spectroscopy, 741–6
EFFICIENCY
The relative efficiencies of a number of nitrite traps at different acidities and bromide ion concentrations, 699–702
ELECTROCHEM
1,8–Diacetylnaphthalene and its cyclization to 3–methyl–1H–phenalen–1–one, 58–61
The effect of electrochemically generated positive bromine species in acetonitrile on the cleavage of carbon–bromine and carbon–chlorine bonds, 336–40
Polarography of some arylazothiohydantoin derivatives, 344–9
The one–electron reduction of carbonium ions. Part 14. Effect of successive introduction of methyl substituents on the reducibility of tropylium ion in chromium(II) ion and cathodic reductions, 670–4
The electrochemical reduction of N,N'–disubstituted 6'–phenyl–2,3–dihydro–1,4–diazepinium salts: formation of bis(tetrahydrodiazepinyls) and a diimidazolidinylbutadiene, 801–6
The anodic oxidation of 1,4–diaminobenzene: an electron spin resonance and electrochemical study, 825–9
Electrogeneration of cyanomethyl anion from phenylsulfonylaceto-

ELECTROCHEM(contd)
nitrile and cyanomethyltrimesitylphosphonium iodide and the relative acidities of XCH_2CN (X = Ph_3P^+, Ph_3As^+, Mes_3P^+, or $PhSO_2$) versus acetic acid in acetonitrile, 1093–8
Electroorganic reactions. Part 17. The competition between cleavage and ylide formation in the cathodic reduction of benzyl–allyl–, cinnamyl–, and polyenylphosphonium salts, 1520–3
Anodic oxidation of carboxamides. Part 3. The mechanism of anodic cyclization of N–methylcarbanilides, 1599–605
ELECTROLYTE
Photogalvanic cells. Part 14. The synthesis and characterization of disulfonated thionines, 794–800
ELECTRON
The thermal elimination of iodine from some substituted α–iodonaphthalenes: a structural study, 610–27
The wavelength– and solvent–dependent photochemistry of 1,1–dicyano–2–methyl–4–phenylbut–1–ene; reaction from two excited states, 774–82
The electronic structure of the s–indacenyl dianion. Structural assessment by nuclear magnetic resonance spectroscopy and molecular orbital calculations, 1260–3
ELECTRONIC
Electronic spectra and electronic structures of ketenimines and carbodiimides, 270–80
The polarization and charge–transfer (PCT) theoretical model for the prediction and the interpretation of the relationship between reactivity and selectivity, 645–51
The circular dichroism of (–)–(S)–3–methylthian: a study of the electronic transitions and stereochemistry of cyclic sulfur derivatives, 1529–33
ELECTROPHILE
The reactions of some common electrophiles, methyl, nitrosonium, nitronium and nitromethyl cations, with monosubstituted benzenes in the gas phase, 967–9
ELECTROPHILIC
Electrophilic aromatic substitution. Part 28. Rate factors for protiodetritiation of all positions of hexahelicene (benzo[c]naphtho[1,2–g]phenanthrene): the reactivity of bent benzene rings, 675–83
Electrophilic aromatic substitution. Part 29. Protiodetritiation of 4H–cyclopenta[def]phenanthrene: the substituent activation factor A_f, 1153–6
ELECTROREDN
Polarography of some arylazothiohydantoin derivatives, 344–9
ELIMINATION
Elimination and hydrolysis reactions of 4–alkoxyimino–5,6–dihydro–6–alkoxyaminopyrimidin–2(1H)–ones and 4–alkoxyimino–5–fluoro–5,6–dihydro–6–alkoxyaminopyrimidin–2(1H)–ones in strong acid media, 113–20
Enhanced reactivities in substitution and elimination reactions in dimethyl sulfoximide, 432–7
Electrophilic aromatic substitution. Part 25. The nitration in aqueous sulfuric acid of some cinnamic acids and other styrene derivatives, 842–7
Routes to 3–bromoflavanone from erythro–2'–hydroxychalcone dibromide: spectral and kinetic evidence for the dominating role of elimination–addition sequences via (E)– and (Z)–α–bromo–2'–hydroxychalcones, 1367–73
EMISSION
Free energy relationships of ionization energies measured by ultraviolet photoelectron spectroscopy in substituted pyrroles, 656–9
ENAMINO
Nuclear magnetic resonance investigations of iminium ion intermediates. Part 9. Multinuclear study of the reaction between Lewis acids and vinylogous amides, 912–17
ENAMINOALDEHYDE
Nuclear magnetic resonance investigations of iminium ion intermediates. Part 9. Multinuclear study of the reaction between Lewis acids and vinylogous amides, 912–17
ENDOR
The radical anion of [2$_4$](1,2,4,5)cyclophane, 1298–303
ENE
Tautomerism in a thioamide–nitroxide: solvent effects in terms of an electron spin resonance parameter for a 2–thiocarbonylimidazolidine 1–oxyl, 1089–92
ENERGETICS
Molecular interactions in nonaqueous solvents. Part 3. Kinetics and energetics of dimerization of a tetrasubstituted copper(II) phthalocyanine dye, 765–9
ENERGY
Thermochemical bond dissociation energies of carbon–magnesium bonds, 464–7
Free energy relationships of ionization energies measured by ultraviolet photoelectron spectroscopy in substituted pyrroles, 656–9
Molecular interactions in nonaqueous solvents. Part 3. Kinetics and energetics of dimerization of a tetrasubstituted copper(II) phthalocyanine dye, 765–9
Small rings. Part 32. The gas phase kinetics, mechanism, and energy hypersurface for the thermolyses of syn– and anti–tricyclo[4.2.0.-$0^{2,5}$]octane, 1076–83
ENOLIZATION
Studies on the mechanism of the enolization reaction of Grignard reagents and ketones. Part 2. Pseudo–first–order rate and deuterium isotope effect studies, 473–7
ENTHALPY
Enthalpies of solution of 2,2'–bipyridyl, 1,10–phenanthroline, and 1,10–phenanthroline monohydrate, 366–8
Small rings. Part 32. The gas phase kinetics, mechanism, and energy hypersurface for the thermolyses of syn– and anti–tricyclo[4.2.0.-$0^{2,5}$]octane, 1076–83
ENZYME
Function micellar catalysis. Part 4. Catalysis of activated ester hydrolysis by surfactant systems as chymotrypsin models, 260–5
On the mechanism of the action of thermolysin: kinetic study of the thermolysin–catalyzed condensation reaction of N–benzyloxycarbonyl–L–aspartic acid with L–phenylalanine methyl ester, 356–60
EPISULFOXIDE
The acid–catalyzed hydrolysis of episulfoxides, 132–9
EPOXIDE
The steric course of the reaction of ethylene oxide with hydrogen halides in the gas phase, 1336–40
EQUIL
Aromatic C–nitroso compounds. Thermodynamics and kinetics of the equilibrium between 2,6–dimethylnitrosobenzene and its trans–dimer, 256–9
The M_C activity coefficient function for acid–base equilibriums. Part 5. The M_C activity coefficient for a reliable estimate of thermodynamic values, 1070–5
Kinetics and intermediates in the several forward and reverse reactions of nitro–substituted arenediazonium ions with hydroxide ion, 1221–9
Alteration of the cis:trans isomer ratio in N–methylformamide using lanthanide shift reagents. Determination of the equilibrium constants for complexation, 1481–5
Studies on mesoionic compounds. Part 4. Protonation equilibriums of 2,3–diaryl–2H–tetrazolium–5–thiolates and 1,3,4–thiadiazolium–2–thiolates in aqueous perchloric acid solutions, 1534–7
Kinetic and equilibrium acid–base properties of strong naphthalenediamine bases, 1562–5
ERINICINE
The determination, by proton nuclear magnetic resonance studies, of some stereochemical features in the alkaloids isocorymine, erinine, erinicine, and eripine, 725–9
ERININE
The determination, by proton nuclear magnetic resonance studies, of some stereochemical features in the alkaloids isocorymine, erinine, erinicine, and eripine, 725–9
ERIOBRUCINOL
Structural studies of some hydroxyeriobrucinol derivatives, 576–82
ERIOSTEMON
Structural studies in the bruceol system, 583–9
ERIPINE
The determination, by proton nuclear magnetic resonance studies, of some stereochemical features in the alkaloids isocorymine, erinine, erinicine, and eripine, 725–9
ESR
Reactions of 1,1–dialkoxyalkene radical cations in aqueous solution with OH^-, HPO_4^{2-}, and H_2O. Electron spin resonance spectroscopic, pulse conductometric, and product analytical studies, 143–54
An electron spin resonance study of alkyl radical addition to diethyl vinylphosphonate, 161–6
Radiation mechanisms. Part 21. Electron spin resonance studies of the effect of ionizing radiation on halobenzenes: the formation of σ^* anions and ipso addition radicals, 185–92
Electron spin resonance studies. Part 59. Radical reactions of thiophens: the formation and reactions of some sulfur–

ESR(contd)
conjugated radical–cations, 207–18
Electron spin resonance studies of spin trapping. On the role of hydroxylamines and an oxaziridine in the formation of nitroxides following addition of hydroxyalkyl radicals to N–tert–butyl–α–phenylnitrone, 379–81
Electron spin resonance and molecular orbital study of radicals in irradiated fluoro–derivatives, 425–31
An electron spin resonance study of pentenynyl and pentadiynyl radicals, 553–60
An electron spin resonance study of pentadienyl and related radicals: homolytic fission of cyclobut–2–enylmethyl radicals, 633–41
An electron spin resonance study on the interactions between bis(pentane–2,4–dionato)copper(II) and some heterocycles. Part 2. The 1:1 adducts with aza–aromatic compounds and azacyclohexanes, 652–5
The electron spin resonance spectrum of the fulvalene radical anion 747–50
The anodic oxidation of 1,4–diaminobenzene: an electron spin resonance and electrochemical study, 825–9
An electron spin resonance study of radical addition to bis(trimethylsilyl)amino(trimethylsilylimino)phosphine, $(Me_3Si)_2NP{:}NSiMe_3$ 866–9
Verdazyls. Part 30. N–1,N–1'–linked biverdazyls (bis–1,2,3,4–tetrahydro–s–tetrazin–1–yls) with a [2.2]–paracyclophanylene bridge, 896–900
A laser flash photolysis study of tert–butoxyphosphoranyl radicals. Optical spectra and kinetics of formation, fragmentation, and rearrangement, 905–11
The ring–opening reactions of cyclobutylmethyl and cyclobutenylmethyl radicals, 970–4
Preparation and spectroscopic properties of pure tetrabenzoporphyrins, 1005–9
Electron spin resonance studies. Part 60. Detection of radical–cations from vinyl sulfides: evidence for a cyclic structure, 1066–9
Tautomerism in a thioamide–nitroxide: solvent effects in terms of an electron spin resonance parameter for a 2–thiocarbonylimidazolidine 1–oxyl, 1089–92
Free radical reactions in solution. Part 6. Thermal decomposition of substituted dibenzyl mercurials in solution. An improved σ• scale 1121–6
An electron spin resonance study of 3–oxypropenoyl radicals derived from glycidols, 1132–7
Electron spin resonance study of inversion and conformations in 1–hydroxycyclohexyl radicals, 1143–7
An electron spin resonance investigation of the radical anions of the benzoylpyridines, 1148–52
Unstable intermediates. Part 194. Alkyl radical–halide ion adducts: an electron spin resonance study of the radiolysis of a range of alkyl bromides and iodides, 1180–5
Radical reactions of carbohydrates. Part 2. An electron spin resonance study of the oxidation of D–glucose and related compounds with the hydroxyl radical, 1186–99
Electron spin resonance studies of thiophosphoranyl radicals. The mechanism of ligand permutation in phosphoranyl radicals, 1211–20
Paramagnetic intermediates in the thermal reactions of benzo[2,1–b;3,4–b']dithiophene–4,5–dione with some metal(III) compounds of the heavier Group VA elements, 1274–9
Radical–anion intermediates. Part 8. The influence of a crown ether on the fluorene and 9–methylfluorene radical–anions, 1295–7
The radical anion of [2$_4$](1,2,4,5)cyclophane, 1298–303
Linewidth alternation in the electron spin resonance spectrum of the fluorene radical anion in the presence of dibenzo crown ethers, 1384–91
Electron spin resonance studies. Part 61. The generation and reactions of the tert–butoxyl radical in aqueous solution, 1392–400
Electron spin resonance studies. Part 62. Acid–catalyzed interconversion of β–hydroxyalkyl radicals: radical–cation intermediates, 1401–5
Heterocyclic free radicals. Part 10. Phenothiazine cation radicals as probes of the inductive effect, 1492–500
The influence of crown ethers on the rate of intramolecular cation exchange involving the 5,12–dihydrotetracene radical anion, 1508–11
Organic peroxides. Part 12. The preparation and properties of some triazinyl peroxides, 1512–19

ESTER
General acid inhibition and the absence of deuterium isotope exchange in base catalyzed hydrolysis of 2,4–dinitrophenyl arylmethanesulfonate esters in aqueous solution, 65–71
The effect of structure change in bases on their reaction with 2,4–dinitrophenyl arylmethanesulfonate esters in water, 78–81
Leaving group effects in thiolester hydrolysis. Part 2. On the possibility of an elimination–addition (keten) mediated pathway in S–acetylcoenzyme A basic hydrolysis and acetyl transfer, 171–4
Electron spin resonance and molecular orbital study of radicals in irradiated fluoro–derivatives, 425–31
The kinetics and mechanism of the hydrolysis of thiol esters in aqueous solution promoted by tetrachlorogold(III) ions, 1406–10
ESTERIFICATION
The separation of polar and steric effects. Part 14. Kinetics of the reactions of benzoic acid and of ortho–substituted benzoic acids with diazodiphenylmethane in various alcohols, 500–8
The separation of polar and steric effects. Part 15. Kinetics of the reactions of benzoic acid and of ortho–substituted benzoic acids with diazodiphenylmethane in various aprotic solvents, 720–4
ESTN
The M_C activity coefficient function for acid–base equilibriums. Part 5. The M_C activity coefficient for a reliable estimate of thermodynamic values, 1070–5
ETHANOL
Induction of instantaneous chain reactions in the peroxodiphosphate–iron(II) system by selected substrates during a titrimetric procedure, 1280–2
ETHER
The crystal structure of 1,4,7,14,17,20,28,35–octaoxa[$2^{3.29}$,$2^{18.34}$][7.7]orthocyclophane and its multihydrated complex with potassium chloride, 1–11
Crystal structure of two bridged macrobicyclic polyethers, 1,5,12,16,23,26,29–heptaoxa[$7^{3.14}$][5.5]orthocyclophane and 1,5,12,16,23,26,29,32–octaoxa[$10^{3.14}$][5.5]orthocyclophane, 12–18
The kinetics of the reaction of phenyl 2,4,6–trinitrophenyl ether with aniline in methanol, acetonitrile, tetrahydrofuran, ethyl acetate, and benzene, 399–402
Complex formation between guanidinium nitrate and 1,4,7,10,13,16–hexaoxacyclooctadecane (18–crown–6). Crystal structure of the hydrogen–bonded 2:1 complex, 1025–30
Kinetics of the reactions of phenyl 2,4,6–trinitrophenyl ether with piperidine, n–butylamine, aniline, benzylamine, and morpholine in benzene, 1105–7
Radical–induced hydrogen exchange in the presence of reducing transition metal ions, 1230–3
Association of crown ethers with anilinium ions in methanol solution and its influence on acid–base equilibriums, 1252–5
Linewidth alternation in the electron spin resonance spectrum of the fluorene radical anion in the presence of dibenzo crown ethers, 1384–91
Electron spin resonance studies. Part 61. The generation and reactions of the tert–butoxyl radical in aqueous solution, 1392–400
Thermal decomposition of diazodiphenylmethane catalyzed by sulfur compounds in the presence of oxygen, 1437–42
The influence of crown ethers on the rate of intramolecular cation exchange involving the 5,12–dihydrotetracene radical anion, 1508–11
Relationship of the oxygen–17 chemical shift to the stretching frequency of the hydroxy group in saturated alcohols, 1558–61
ETHOXYCARBONYL
Ring–opening reactions of some 1–ethoxycarbonylaziridines with acetic acid in cyclohexane, 121–6
ETHOXYCARBONYLAZIRIDINE
Ring–opening reactions of some 1–ethoxycarbonylaziridines with acetic acid in cyclohexane, 121–6
ETHOXYETHANE
Radical–induced hydrogen exchange in the presence of reducing transition metal ions, 1230–3
ETHYL
Pyridine nitrogen reactivity, 409–13
ETHYLCARBAZOLE
Linear free energy relationships. Part 10. Synthesis, thermal, spectral, electrochemical, and hole transport (conduction) properties of some novel carbazole derivatives, 1267–73
ETHYLCARBAZOLEAMINE
Linear free energy relationships. Part 10. Synthesis, thermal, spectral, electrochemical, and hole transport (conduction)

ETHYLCARBAZOLEAMINE(contd)
properties of some novel carbazole derivatives, 1267–73
ETHYLCARBAZOLECARBALDEHYDE
Linear free energy relationships. Part 10. Synthesis, thermal, spectral, electrochemical, and hole transport (conduction) properties of some novel carbazole derivatives, 1267–73
ETHYLENE
The role of solvent in the mechanism of protonation of benzene and ethylene, 708–12
Electron spin resonance studies. Part 60. Detection of radical–cations from vinyl sulfides: evidence for a cyclic structure, 1066–9
The steric course of the reaction of ethylene oxide with hydrogen halides in the gas phase, 1336–40
EXCHANGE
The thermal elimination of iodine from some substituted α–iodonaphthalenes: a structural study, 610–27
Electrophilic aromatic substitution. Part 28. Rate factors for protiodetritiation of all positions of hexahelicene (benzo[c]naphtho[1,2–g]phenanthrene): the reactivity of bent benzene rings, 675–83
The wavelength– and solvent–dependent photochemistry of 1,1–dicyano–2–methyl–4–phenylbut–1–ene; reaction from two excited states, 774–82
Acetyl exchange between acetyl chloride and sterically hindered aryl ketones under Friedel–Crafts conditions, 830–7
The reaction of CH_4^+, CH_3^+ and other simple carbocations with benzene in the gas phase, 838–41
Electrophilic aromatic substitution. Part 29. Protiodetritiation of 4H–cyclopenta[def]phenanthrene: the substituent activation factor A_f, 1153–6
Radical–induced hydrogen exchange in the presence of reducing transition metal ions, 1230–3
A nondestructive reactivity index of carbohydrates. The hydroxy protonation rates in dimethyl sulfoxide, 1329–35
The influence of crown ethers on the rate of intramolecular cation exchange involving the 5,12–dihydrotetracene radical anion, 1508–11
Mechanism of base–catalyzed hydrogen–deuterium exchange in thiazolium ion: evidence for the involvement of a tetrahedral intermediate, 1538–43
EXCITED
Free radical studies by resonance Raman spectroscopy: phenothiazine, 10–methylphenothiazine, and phenoxazine radical cations, 852–9
FENTON
Radical–induced hydrogen exchange in the presence of reducing transition metal ions, 1230–3
FERROCENYL
Spontaneous and base–catalyzed elimination from 1–ferrocenylalkyl cations, 924–30
FERROCENYLALKYLIUM
Spontaneous and base–catalyzed elimination from 1–ferrocenylalkyl cations, 924–30
FERROUS
Induction of instantaneous chain reactions in the peroxodiphosphate–iron(II) system by selected substrates during a titrimetric procedure, 1280–2
FLASH
Syn–anti–photoisomerization of chelated arylhydrazones of 1,2,3–triketones: a correction, 219
FLAVONE
Routes to 3–bromoflavanone from erythro–2'–hydroxychalcone dibromide: spectral and kinetic evidence for the dominating role of elimination–addition sequences via (E)– and (Z)–α–bromo–2'–hydroxychalcones, 1367–73
pH–dependent fluorescence spectroscopy. Part 12. Flavone, 7–hydroxyflavone, and 7–methoxyflavone, 1443–8
FLOW
Kinetics and intermediates in the several forward and reverse reactions of nitro–substituted arenediazonium ions with hydroxide ion, 1221–9
FLUORENE
Radical–anion intermediates. Part 8. The influence of a crown ether on the fluorene and 9–methylfluorene radical–anions, 1295–7
Linewidth alternation in the electron spin resonance spectrum of the fluorene radical anion in the presence of dibenzo crown ethers, 1384–91
FLUORENYL
Kinetic hydrogen isotope effects in intermolecular hydride transfer from arylalkanes to 9–arylfluoren–9–yl cations, 684–91
The photochemistry of sulfoxides. A CIDNP study of carbon–sulfur bond cleavage paths, 1417–29
FLUORENYLIDENEAMINOOXYPROPIONATE
Diastereoisomeric charge–transfer complexes. Measurement of thermodynamic constants by proton nuclear magnetic resonance spectroscopy, 350–2
FLUORESCENCE
The fluorescence of some dipolar N,N–dialkyl–4–(dichloro–1,3,5–triazinyl)anilines. Part 2. Temperature and solvent effects on the radiationless decay of an intramolecular charge–transfer excited singlet state, 918–23
pH–dependent fluorescence spectroscopy. Part 12. Flavone, 7–hydroxyflavone, and 7–methoxyflavone, 1443–8
FLUORIDE
Protonation of alkyl aryl sulfides in antimony pentafluoride–fluorosulfonic acid solution, 62–4
FLUORINATED
Electron spin resonance and molecular orbital study of radicals in irradiated fluoro–derivatives, 425–31
FLUORO
Solvolysis of some alkyl esters of fluorosulfuric acid in water and aqueous solvents, 940–3
Perfluoro effects in nitrogen–15 nuclear magnetic resonance spectroscopy. Part 1. Aryl and N–heteroaryl azides, 975–9
X–ray crystallographic determination of the molecular structures of cis– and trans–isomers of (±)–5–fluorocyclophosphamide (2–[bis–(2–chloroethyl)amino]–5–fluorotetrahydro–2H–1,3,2–oxazaphosphorine 2–oxide), 980–4
FLUOROALKANE
Electron spin resonance and molecular orbital study of radicals in irradiated fluoro–derivatives, 425–31
FLUOROBENZENE
Aroyl peroxides. Part 7. The effects of additives on the thermolysis of aroyl peroxides in arenes and the elimination of possible complications in the measurement of partial rate factors for phenylation, 1109–20
FLUOROCYCLOPHOSPHAMIDE
X–ray crystallographic determination of the molecular structures of cis– and trans–isomers of (±)–5–fluorocyclophosphamide (2–[bis–(2–chloroethyl)amino]–5–fluorotetrahydro–2H–1,3,2–oxazaphosphorine 2–oxide), 980–4
FLUORODECALIN
Electron spin resonance and molecular orbital study of radicals in irradiated fluoro–derivatives, 425–31
FLUOROESTER
Electron spin resonance and molecular orbital study of radicals in irradiated fluoro–derivatives, 425–31
FLUOROETHYLAMINE
Kinetics of the reactions of aniline and 2,2,2–trifluoroethylamine with 1,3,5–trinitrobenzene in dimethyl sulfoxide and acetonitrile, and of 2,2,2–trifluoroethylamine with 1–fluoro– and 1–chloro–2,4–dinitrobenzenes in these solvents, 1201–5
FLUOROPYRIDYL
Perfluoro effects in nitrogen–15 nuclear magnetic resonance spectroscopy. Part 1. Aryl and N–heteroaryl azides, 975–9
FLUOROPYRIMIDINONE
Elimination and hydrolysis reactions of 4–alkoxyimino–5,6–dihydro–6–alkoxyaminopyrimidin–2(1H)–ones and 4–alkoxyimino–5–fluoro–5,6–dihydro–6–alkoxyaminopyrimidin–2(1H)–ones in strong acid media, 113–20
FLUOROSULFATE
Solvolysis of some alkyl esters of fluorosulfuric acid in water and aqueous solvents, 940–3
Cyclopropane ring opening of bicyclo[3.1.0]hexan–3–ols in fluorosulfuric acid, 948–52
Opening of the cyclopropane ring of the thujan–3–ols in fluorosulfuric acid, 953–7
FLUOROSULFONATE
Protonation of alkyl aryl sulfides in antimony pentafluoride–fluorosulfonic acid solution, 62–4
FLUXIONALITY
Electron spin resonance studies of thiophosphoranyl radicals. The mechanism of ligand permutation in phosphoranyl radicals, 1211–20
FORMALDEHYDE
Induction of instantaneous chain reactions in the peroxodiphosphate–iron(II) system by selected substrates during a titrimetric procedure, 1280–2

FORMATION
Electron spin resonance studies of spin trapping. On the role of hydroxylamines and an oxaziridine in the formation of nitroxides following addition of hydroxyalkyl radicals to N–tert–butyl–α–phenylnitrone, 379–81
Thermochemical bond dissociation energies of carbon–magnesium bonds, 464–7
A kinetic analysis of the acidic degradation of penicillin G and confirmation of penicillamine as a degradation product, 1247–51
The radical anion of [2$_4$](1,2,4,5)cyclophane, 1298–303
Electron spin resonance studies. Part 62. Acid–catalyzed interconversion of β–hydroxyalkyl radicals: radical–cation intermediates, 1401–5
Alteration of the cis:trans isomer ratio in N–methylformamide using lanthanide shift reagents. Determination of the equilibrium constants for complexation, 1481–5
FRAGMENTATION
A laser flash photolysis study of tert–butoxyphosphoranyl radicals. Optical spectra and kinetics of formation, fragmentation, and rearrangement, 905–11
FREE
Free radical reactions of the phenothiazine, metiazinic acid, 890–5
Free radical reactions in solution. Part 6. Thermal decomposition of substituted dibenzyl mercurials in solution. An improved $\sigma_\cdot$ scale 1121–6
FRIEDEL
The Friedel–Crafts acetylatin of naphthalene. Evidence for concurrent second– and third–order reactions, 376–8
Acetyl exchange between acetyl chloride and sterically hindered aryl ketones under Friedel–Crafts conditions, 830–7
FULVALENE
The electron spin resonance spectrum of the fulvalene radical anion 747–50
FULVENE
Photolysis of the carbon–hydrogen bond in pentamethylcyclopentadiene. Properties of the pentamethylcyclopentadienyl radical, 692–6
FUROXAN
Unsymmetrically substituted furoxans. Part 6. 3–Nitro–4–phenylfuroxan: reaction with sodium methoxide and x–ray structural analysis, 1240–2
FURYL
Conformation and photoelectron spectra of 2–(2–furyl)pyrrole and 2–(2–thienyl)pyrrole, 127–31
FURYLPYRROLE
Conformation and photoelectron spectra of 2–(2–furyl)pyrrole and 2–(2–thienyl)pyrrole, 127–31
FURYLSULFONYL
Nucleophilic substitution at sulfonyl sulfur. Part 2. Hydrolysis and alcoholysis of aromatic sulfonyl chlorides, 438–41
GAMMA
Radiation mechanisms. Part 21. Electron spin resonance studies of the effect of ionizing radiation on halobenzenes: the formation of σ^* anions and ipso addition radicals, 185–92
GERMACRANOLIDE
Stereochemistry of a novel sesquiterpene lactone. X–ray determination of the structure of ursiniolide A monohydrate, 660–3
GLASS
Linear free energy relationships. Part 10. Synthesis, thermal, spectral, electrochemical, and hole transport (conduction) properties of some novel carbazole derivatives, 1267–73
GLUCOSE
Radical reactions of carbohydrates. Part 2. An electron spin resonance study of the oxidation of D–glucose and related compounds with the hydroxyl radical, 1186–99
Induction of instantaneous chain reactions in the peroxodiphosphate–iron(II) system by selected substrates during a titrimetric procedure, 1280–2
GLYCIDOL
An electron spin resonance study of 3–oxypropenoyl radicals derived from glycidols, 1132–7
GLYCOPEPTIDE
Assignment of the carbon–13 spectrum of vancomycin and its derivatives, 201–6
GLYCOSIDE
Radical reactions of carbohydrates. Part 2. An electron spin resonance study of the oxidation of D–glucose and related compounds with the hydroxyl radical, 1186–99
GLYOXAL
An analysis of the proton and carbon–13 nuclear magnetic resonance spectra of 3–tert–butylaminoacrolein and of glyoxal–tert–butylhydrazone, 1283–6
The effect of charge and of electron density on the nuclear magnetic resonance parameters of conjugated systems: some isoelectronic anions and cations, 1287–91
GOLD
The kinetics and mechanism of the hydrolysis of thiol esters in aqueous solution promoted by tetrachlorogold(III) ions, 1406–10
GRIGNARD
Autoxidation of alkyl compounds of zirconium and hafnium, 419–23
Studies on the mechanism of the enolization reaction of Grignard reagents and ketones. Part 2. Pseudo–first–order rate and deuterium isotope effect studies, 473–7
Stereochemistry of addition to the carbonyl group. Part 17. Study of the factors affecting asymmetric induction in condensation reactions of methyl– and phenylmagnesium bromide with chiral carbonyl compounds, 597–603
GROUP
Paramagnetic intermediates in the thermal reactions of benzo[2,1–b;3,4–b']dithiophene–4,5–dione with some metal(III) compounds of the heavier Group VA elements, 1274–9
GUANIDINIUM
Complex formation between guanidinium nitrate and 1,4,7,10,13,1-6–hexaoxacyclooctadecane (18–crown–6). Crystal structure of the hydrogen–bonded 2:1 complex, 1025–30
HALIDE
Nucleophilic substitution at sulfonyl sulfur. Part 1. Reactivity of thiophene–2–sulfonyl halides in water and methanol–acetonitrile 221–7
The effect of electrochemically generated positive bromine species in acetonitrile on the cleavage of carbon–bromine and carbon–chlorine bonds, 336–40
Autoxidation of alkyl compounds of zirconium and hafnium, 419–23
The dependence on temperature of rate constants for solvolysis of alkyl halides and related compounds in water, 1157–60
Unstable intermediates. Part 194. Alkyl radical–halide ion adducts: an electron spin resonance study of the radiolysis of a range of alkyl bromides and iodides, 1180–5
Model calculations of isotope effects. Part 5. Secondary hydrogen isotope effects in the solvolysis of isopropyl halides, 1316–24
The steric course of the reaction of ethylene oxide with hydrogen halides in the gas phase, 1336–40
HALO
Radiation mechanisms. Part 21. Electron spin resonance studies of the effect of ionizing radiation on halobenzenes: the formation of σ^* anions and ipso addition radicals, 185–92
HALOACETATE
Structural studies in the bruceol system, 583–9
HALOALKANE
The effect of electrochemically generated positive bromine species in acetonitrile on the cleavage of carbon–bromine and carbon–chlorine bonds, 336–40
HALOANILINO
Photocyclization of aryl halides. Part 2. The upper excited state reactivity of 3–(2–haloanilino)–1,3–diphenylprop–2–enones: hydrogen–bonded configurational lock in photosynthesis, 1010–14
HALOANILINODIPHENYLPROPENONE
Photocyclization of aryl halides. Part 2. The upper excited state reactivity of 3–(2–haloanilino)–1,3–diphenylprop–2–enones: hydrogen–bonded configurational lock in photosynthesis, 1010–14
HALOBENZENE
Radiation mechanisms. Part 21. Electron spin resonance studies of the effect of ionizing radiation on halobenzenes: the formation of σ^* anions and ipso addition radicals, 185–92
A kinetic study of the mechanisms of S_NAr reactions of neutral and cationic metal–complex haloarenes with methoxide ion, 193–200
HALODINITROBENZENE
Kinetics of the reactions of aniline and 2,2,2–trifluoroethylamine with 1,3,5–trinitrobenzene in dimethyl sulfoxide and acetonitrile, and of 2,2,2–trifluoroethylamine with 1–fluoro– and 1–chloro–2,4–dinitrobenzenes in these solvents, 1201–5
HALOGENATION
Intramolecular catalysis in the enolization of β–piperidinopropioph-

HALOGENATION(contd)
enone and its methiodide derivative, 1351–7
HAMMETT
Perchlorate esters. Part 3. Correlation of the rates of reaction of arenesulfonate ions with methyl perchlorate in acetonitrile, 49–52
Linear free energy relationships in the thiophene series. Part 2. The kinetics of the reactions of some 2–bromo–3–nitro–5–X–thiophenes with substituted anilines in methanol, 388–92
Dipole moments of derivatives of 4–phenylazo–N,N–diethylaniline and of 9–phenylazojulolidine (9–phenylazo–2,3,6,7–tetrahydro–1H,5H–benzo[ij]quinolizine), 1292–4
HEAT
Thermochemical bond dissociation energies of carbon–magnesium bonds, 464–7
HELICENE
Diastereoisomeric charge–transfer complexes. Measurement of thermodynamic constants by proton nuclear magnetic resonance spectroscopy, 350–2
HELICITY
Optical rotatory dispersion and absolute configuration. Part 32. Circular dichroism and conformation of 3–hydroxypiperidines, 697–8
HEPTAOXAORTHOCYCLOPHANE
Crystal structure of two bridged macrobicyclic polyethers, 1,5,12,16,23,26,29–heptaoxa[$7^{3,14}$][5.5]orthocyclophane and 1,5,12,16,23,26,29,32–octaoxa[$10^{3,14}$][5.5]orthocyclophane, 12–18
HETEROCYCLE
An electron spin resonance study on the interactions between bis(pentane–2,4–dionato)copper(II) and some heterocycles. Part 2. The 1:1 adducts with aza–aromatic compounds and azacyclohexanes, 652–5
The circular dichroism of (–)–(S)–3–methylthian: a study of the electronic transitions and stereochemistry of cyclic sulfur derivatives, 1529–33
HEXAHELICENE
Electrophilic aromatic substitution. Part 28. Rate factors for protiodetritiation of all positions of hexahelicene (benzo[c]naphtho[1,2–g]phenanthrene): the reactivity of bent benzene rings, 675–83
HEXANE
Selectivity in the halogenation of hexane by tertiary aminium radicals from the photodecomposition of N–haloammonium perchlorates, 545–52
Unimolecular reactions of isolated organic ions: some isomers of $C_6H_{14}^{+\cdot}$, 958–66
HEXANOATE
Function micellar catalysis. Part 4. Catalysis of activated ester hydrolysis by surfactant systems as chymotrypsin models, 260–5
HOLE
Linear free energy relationships. Part 10. Synthesis, thermal, spectral, electrochemical, and hole transport (conduction) properties of some novel carbazole derivatives, 1267–73
HOMOLYSIS
Photolysis of the carbon–hydrogen bond in pentamethylcyclopentadiene. Properties of the pentamethylcyciopentadienyl radical, 692–6
Aroyl peroxides. Part 7. The effects of additives on the thermolysis of aroyl peroxides in arenes and the elimination of possible complications in the measurement of partial rate factors for phenylation, 1109–20
HYDANTOIN
Polarography of some arylazothiohydantoin derivatives, 344–9
HYDRAZONE
Syn–anti–photoisomerization of chelated arylhydrazones of 1,2,3–triketones: a correction, 219
Conformational studies by dynamic nuclear magnetic resonance. Part 20. Internal motion in hydrazones and related derivatives, 604–9
Kinetics and mechanism of the reaction of substituted phenylhydrazones with thallium(III) acetate. Reactions of mercury(II) acetate with nitrogen compounds. Part 8, 1243–6
Mononuclear heterocyclic rearrangements. Part 7. Evidence for general base catalysis in the rearrangement of the Z–phenylhydrazone of 3–benzoyl–5–phenyl–1,2,4–oxadiazole into 2,5–diphenyl–4–benzoylamino–1,2,3–triazole in dioxane–water, 1325–8
HYDRIDE
Kinetic hydrogen isotope effects in intermolecular hydride transfer from arylalkanes to 9–arylfluoren–9–yl cations, 684–91
HYDROCARBON
Conformational behavior of organic carbonyl compounds. Part 2. Aldehydes and acetyl derivatives of condensed aromatic hydrocarbons, 228–32
HYDROCHLORIDE
The electrochemical reduction of N,N'–disubstituted 6'–phenyl–2,3–dihydro–1,4–diazepinium salts: formation of bis(tetrahydrodiazepinyls) and a diimidazolidinylbutadiene, 801–6
HYDROGEN
Intramolecular hydrogen bonding and molecular conformations of nucleosides: uridine derivatives, 82–9
Crystal and molecular structures of butan–2–one p–nitrophenylhydrazone, propanal 2,4–dinitrophenylhydrazone, dimethyl 2–oxopropanedioate phenylhydrazone, and dimethyl 2–oxopropanedioate 2,4–dinitrophenylhydrazone: hydrogen bonding and bond order in phenylhydrazones, 155–60
Solid–state transformations and crystal structure analysis of α– and β–o–acetamidobenzamide, 233–8
Linear solvation energy relationship. Part 11. An analysis of nitrogen–15 solvent shifts in amides, 353–5
Electrophilic aromatic substitution. Part 28. Rate factors for protiodetritiation of all positions of hexahelicene (benzo[c]naphtho[1,2–g]phenanthrene): the reactivity of bent benzene rings, 675–83
Reactions of the methylthiyl radical with unsaturated cycloalkanes: abstraction, addition, and rearrangement, 703–7
The separation of polar and steric effects. Part 15. Kinetics of the reactions of benzoic acid and of ortho–substituted benzoic acids with diazodiphenylmethane in various aprotic solvents, 720–4
The reaction of CH_4^+, CH_3^+ and other simple carbocations with benzene in the gas phase, 838–41
Complex formation between guanidinium nitrate and 1,4,7,10,13,16–hexaoxacyclooctadecane (18–crown–6). Crystal structure of the hydrogen–bonded 2:1 complex, 1025–30
An electron spin resonance study of 3–oxypropenoyl radicals derived from glycidols, 1132–7
Electrophilic aromatic substitution. Part 29. Protiodetritiation of 4H–cyclopenta[def]phenanthrene: the substituent activation factor A_f, 1153–6
Kinetics and mechanism of the oxidation of 3,5–di–tert–butyl–o–benzoquinone with hydrogen peroxide in aqueous methanol solution, 1176–9
Radical–induced hydrogen exchange in the presence of reducing transition metal ions, 1230–3
Unsymmetrically substituted furoxans. Part 6. 3–Nitro–4–phenylfuroxan: reaction with sodium methoxide and x–ray structural analysis, 1240–2
The steric course of the reaction of ethylene oxide with hydrogen halides in the gas phase, 1336–40
Electron spin resonance studies. Part 61. The generation and reactions of the tert–butoxyl radical in aqueous solution, 1392–400
Structural studies of some serrulatane diterpenes, 1467–72
Mechanism of base–catalyzed hydrogen–deuterium exchange in thiazolium ion: evidence for the involvement of a tetrahedral intermediate, 1538–43
1,8–Dimorpholinonaphthalene: proton transfer reactions, 1566–71
HYDROLYSIS
General acid inhibition and the absence of deuterium isotope exchange in base catalyzed hydrolysis of 2,4–dinitrophenyl arylmethanesulfonate esters in aqueous solution, 65–71
The effect of changing the substituent in the sulfonyl group in base catalyzed hydrolysis of 2,4–dinitrophenyl arylmethanesulfonate esters in aqueous solution, 72–7
Elimination and hydrolysis reactions of 4–alkoxyimino–5,6–dihydro–6–alkoxyaminopyrimidin–2(1H)–ones and 4–alkoxyimino–5–fluoro–5,6–dihydro–6–alkoxyaminopyrimidin–2(1H)–ones in strong acid media, 113–20
The acid–catalyzed hydrolysis of episulfoxides, 132–9
Leaving group effects in thiolester hydrolysis. Part 2. On the possibility of an elimination–addition (keten) mediated pathway in S–acetylcoenzyme A basic hydrolysis and acetyl transfer, 171–4
Nucleophilic substitution at sulfonyl sulfur. Part 1. Reactivity of thiophene–2–sulfonyl halides in water and methanol–acetonitrile 221–7
Function micellar catalysis. Part 4. Catalysis of activated ester hydrolysis by surfactant systems as chymotrypsin models, 260–5
Nucleophilic substitution at sulfonyl sulfur. Part 2. Hydrolysis and alcoholysis of aromatic sulfonyl chlorides, 438–41

HYDROLYSIS(contd)
Stepwise proton transfer in the acid–catalyzed hydrolysis of 3,1–benzoxazin–4–ones: electrostatic or hydrogen–bond stabilization of the conjugate acid, 590–6
The electrochemical reduction of N,N'–disubstituted 6'–phenyl–2,3–dihydro–1,4–diazepinium salts: formation of bis(tetrahydrodiazepinyls) and a diimidazolidinylbutadiene, 801–6
Benzoquinone imines. Part 17. Kinetics and mechanism of the hydrolysis and cyclization of 2–aminoindophenols in aqueous solution, 886–9
The kinetics and mechanism of the spontaneous hydrolysis of 4–chlorophenyl isocyanate in diethyl ether solution, 901–4
The dependence on temperature of rate constants for solvolysis of alkyl halides and related compounds in water, 1157–60
The kinetics and mechanism of the hydrolysis of thiol esters in aqueous solution promoted by tetrachlorogold(III) ions, 1406–10
Organic peroxides. Part 12. The preparation and properties of some triazinyl peroxides, 1512–19
HYDROXIDE
The stabilities of Meisenheimer complexes. Part 26. The reactions of some aromatic nitro compounds with base in tert–butyl alcohol–water mixtures, 807–11
Kinetics and intermediates in the several forward and reverse reactions of nitro–substituted arenediazonium ions with hydroxide ion, 1221–9
HYDROXY
Barriers to intramolecular hydride transfers in some polycyclic hydroxyketones, 175–84
Electron spin resonance studies of spin trapping. On the role of hydroxylamines and an oxaziridine in the formation of nitroxides following addition of hydroxyalkyl radicals to N–tert–butyl–α–phenylnitrone, 379–81
Structural studies of some hydroxyeriobrucinol derivatives, 576–82
Optical rotatory dispersion and absolute configuration. Part 32. Circular dichroism and conformation of 3–hydroxypiperidines, 697–8
A nondestructive reactivity index of carbohydrates. The hydroxy protonation rates in dimethyl sulfoxide, 1329–35
Routes to 3–bromoflavanone from erythro–2'–hydroxychalcone dibromide: spectral and kinetic evidence for the dominating role of elimination–addition sequences via (E)– and (Z)–α–bromo–2'–hydroxychalcones, 1367–73
Relationship of the oxygen–17 chemical shift to the stretching frequency of the hydroxy group in saturated alcohols, 1558–61
HYDROXYALKYL
Electron spin resonance studies of spin trapping. On the role of hydroxylamines and an oxaziridine in the formation of nitroxides following addition of hydroxyalkyl radicals to N–tert–butyl–α–phenylnitrone, 379–81
Electron spin resonance studies. Part 62. Acid–catalyzed interconversion of β–hydroxyalkyl radicals: radical–cation intermediates, 1401–5
HYDROXYCHALCONE
Routes to 3–bromoflavanone from erythro–2'–hydroxychalcone dibromide: spectral and kinetic evidence for the dominating role of elimination–addition sequences via (E)– and (Z)–α–bromo–2'–hydroxychalcones, 1367–73
HYDROXYERIOBRUCINOL
Structural studies of some hydroxyeriobrucinol derivatives, 576–82
HYDROXYETHYLPIPERAZINE
The crystal structures of a macrocycle containing 2,6–pyridino and piperazino subunits and of the tetrachlorocobaltate(II) salt of its diprotonated cation, 331–5
HYDROXYFLAVONE
pH–dependent fluorescence spectroscopy. Part 12. Flavone, 7–hydroxyflavone, and 7–methoxyflavone, 1443–8
HYDROXYIMIDAZOLINE
Tautomerism in a thioamide–nitroxide: solvent effects in terms of an electron spin resonance parameter for a 2–thiocarbonylimidazolidine 1–oxyl, 1089–92
HYDROXYL
Radical reactions of carbohydrates. Part 2. An electron spin resonance study of the oxidation of D–glucose and related compounds with the hydroxyl radical, 1186–99
HYDROXYLAMINE
Elimination and hydrolysis reactions of 4–alkoxyimino–5,6–dihydro–6–alkoxyaminopyrimidin–2(1H)–ones and 4–alkoxyimino–5–fluoro–5,6–dihydro–6–alkoxyaminopyrimidin–2(1H)–ones in strong acid media, 113–20
Kinetics and mechanisms of the Bamberger rearrangement. Part 4. Rearrangement of sterically hindered phenylhydroxylamines to 4–aminophenols in aqueous sulfuric acid solution, 1596–8
HYDROXYLATE
A nondestructive reactivity index of carbohydrates. The hydroxy protonation rates in dimethyl sulfoxide, 1329–35
HYDROXYPENTACYCLOUNDECANONE
Barriers to intramolecular hydride transfers in some polycyclic hydroxyketones, 175–84
HYDROXYPHENYLVINYL
Photocyclization of aryl halides. Part 2. The upper excited state reactivity of 3–(2–haloanilino)–1,3–diphenylprop–2–enones: hydrogen–bonded configurational lock in photosynthesis, 1010–14
HYDROXYPHENYLVINYLPHENANTHRIDINE
Photocyclization of aryl halides. Part 2. The upper excited state reactivity of 3–(2–haloanilino)–1,3–diphenylprop–2–enones: hydrogen–bonded configurational lock in photosynthesis, 1010–14
HYDROXYPIPERIDINE
Optical rotatory dispersion and absolute configuration. Part 32. Circular dichroism and conformation of 3–hydroxypiperidines, 697–8
HYPERBOLIC
A hyperbolic modification of linear free energy relationships, 1084–8
HYPERSURFACE
Small rings. Part 32. The gas phase kinetics, mechanism, and energy hypersurface for the thermolyses of syn– and anti–tricyclo[4.2.0.-$0^{2,5}$]octane, 1076–83
HYPERVALENCY
Electron spin resonance studies of thiophosphoranyl radicals. The mechanism of ligand permutation in phosphoranyl radicals, 1211–20
HYPOPHOSPHITE
Induction of instantaneous chain reactions in the peroxodiphosphate–iron(II) system by selected substrates during a titrimetric procedure, 1280–2
IMIDAZOLIDINONE
Mechanistic studies in the chemistry of urea. Part 9. Reactions of 1,2–diaminoethane and related compounds with urea and N–alkylated ureas, 317–19
IMIDAZOLIDINYLBUTADIENE
The electrochemical reduction of N,N'–disubstituted 6'–phenyl–2,3–dihydro–1,4–diazepinium salts: formation of bis(tetrahydrodiazepinyls) and a diimidazolidinylbutadiene, 801–6
IMIDAZOLINONE
Mechanistic studies in the chemistry of urea. Part 8. Reactions of urea, 1–methylurea, and 1,3–dimethylurea with some acyloins and butane–2,3–dione (diacetyl) in acid solution, 310–16
IMINO
An electron spin resonance study of radical addition to bis(trimethylsilyl)amino(trimethylsilylimino)phosphine, $(Me_3Si)_2NP{:}NSiMe_3$ 866–9
IMINOBENZENE
The anodic oxidation of 1,4–diaminobenzene: an electron spin resonance and electrochemical study, 825–9
IMINOPHOSPHINE
An electron spin resonance study of radical addition to bis(trimethylsilyl)amino(trimethylsilylimino)phosphine, $(Me_3Si)_2NP{:}NSiMe_3$ 866–9
IMINOPYRAN
The effect of salt formation on the molecular structure and charge distribution in imines: the crystal and molecular structures and the ultraviolet, infrared, and the proton and carbon–13 nuclear magnetic resonance spectra of 2,6–dimethyl–4–(p–nitrophenylimino)pyran and its hydrobromide and methobromide salts, 303–9
INDACENYLDILITHIUM
The electronic structure of the s–indacenyl dianion. Structural assessment by nuclear magnetic resonance spectroscopy and molecular orbital calculations, 1260–3
INDANOL
The hydrogen–stretching absorptions and conformations of tetralin–1–ol, chroman–4–ol, thiochroman–4–ol, and indan–1–ol derivatives, 944–7
INDENE
The carbon–13 nuclear magnetic resonance substituent chemical shifts of 2–substituted indenes. Interpretation by a multivariate data analysis method, 403–8

INDENYLLITHIUM
The electronic structure of the s-indacenyl dianion. Structural assessment by nuclear magnetic resonance spectroscopy and molecular orbital calculations, 1260–3
INDICATOR
Statistical analysis of solvatochromic shift data, 104–9
INDO
1,8-Diacetylnaphthalene and its cyclization to 3-methyl-1H-phenalen-1-one, 58–61
INDOLE
Electrophilic ipso-substitutions. Part 1. Reaction of 3-substituted indoles with nitronium and nitrosonium ions, 628–32
INDOPHENOL
Benzoquinone imines. Part 17. Kinetics and mechanism of the hydrolysis and cyclization of 2-aminoindophenols in aqueous solution, 886–9
INDUCTION
Stereochemistry of addition to the carbonyl group. Part 17. Study of the factors affecting asymmetric induction in condensation reactions of methyl- and phenylmagnesium bromide with chiral carbonyl compounds, 597–603
Induction of instantaneous chain reactions in the peroxodiphosphate-iron(II) system by selected substrates during a titrimetric procedure, 1280–2
INDUCTIVE
Heterocyclic free radicals. Part 10. Phenothiazine cation radicals as probes of the inductive effect, 1492–500
INTERMEDIATE
Ipso attack in the nitration of aromatic amines. Part 1. The reactions of N,N-dimethyl-p-toluidine and some related compounds, 518–25
The wavelength- and solvent-dependent photochemistry of 1,1-dicyano-2-methyl-4-phenylbut-1-ene; reaction from two excited states, 774–82
INTRAMOL
Intramolecular [2+2] photoaddition of a 1,7-diene, 1473–80
The influence of crown ethers on the rate of intramolecular cation exchange involving the 5,12-dihydrotetracene radical anion, 1508–11
INVERSION
Determination of ring inversion barriers for 1H,3H-naphtho[1,8-cd]pyran and its methyl substituted derivatives by molecular mechanics calculations and dynamic nuclear magnetic resonance spectroscopy, 741–6
Electron spin resonance study of inversion and conformations in 1-hydroxycyclohexyl radicals, 1143–7
Conformations and barriers to inversion of seven-membered cyclic oxamides and their monothio and dithio analogs: a study by dynamic nuclear magnetic resonance spectroscopy and molecular mechanics, 1344–50
IODIDE
Pyridine nitrogen reactivity, 409–13
Unimolecular solvolysis of some organosilicon perchlorates and iodides, 1309–15
IODINATION
The thermal elimination of iodine from some substituted α-iodonaphthalenes: a structural study, 610–27
Intramolecular catalysis in the enolization of β-piperidinopropiophenone and its methiodide derivative, 1351–7
IODO
The thermal elimination of iodine from some substituted α-iodonaphthalenes: a structural study, 610–27
IODOMERCURATE
Restricted rotation in methyl- and cyanomethyl-tris-(2,4,6-trimethylphenyl)phosphonium compounds. A proton nuclear magnetic resonance spectroscopic study. The crystal structure of cyanomethyltris-(2,4,6-trimethylphenyl)phosphonium tetraiodomercurate(II), 1099–104
IODONAPHTHALENE
The thermal elimination of iodine from some substituted α-iodonaphthalenes: a structural study, 610–27
IODOSYLBENZENE
Oxidation of organic sulfides by chlorine and iodosylbenzene diacetate: kinetics and mechanism, 382–7
ION
The effect of electrochemically generated positive bromine species in acetonitrile on the cleavage of carbon–bromine and carbon–chlorine bonds, 336–40
Metastable decomposition of $C_3H_6O^{\bullet+}$ ions, 770–3
Association of crown ethers with anilinium ions in methanol solution and its influence on acid–base equilibriums, 1252–5
Induction of instantaneous chain reactions in the peroxodiphosphate-iron(II) system by selected substrates during a titrimetric procedure, 1280–2
Kinetic and equilibrium solvent isotope effects on the deprotonation of a salicylate ion by hydroxide ion and general bases, 1304–8
Gas-phase methylation of phenol and anisole by dimethylhalonium ions, 1430–6
The influence of crown ethers on the rate of intramolecular cation exchange involving the 5,12-dihydrotetracene radical anion, 1508–11
IONIZATION
Free energy relationships of ionization energies measured by ultraviolet photoelectron spectroscopy in substituted pyrroles, 656–9
Photoelectron spectroscopic studies of some 2-azabicyclo[2.2.2]octan-5-one and bicyclo[2.2.2]octanone derivatives, 991–4
Ionization constants of 3-substituted propiolic acids in water, 1341–3
IPSO
Ipso attack in the nitration of aromatic amines. Part 1. The reactions of N,N-dimethyl-p-toluidine and some related compounds, 518–25
IR
Intramolecular hydrogen bonding and molecular conformations of nucleosides: uridine derivatives, 82–9
The effect of salt formation on the molecular structure and charge distribution in imines: the crystal and molecular structures and the ultraviolet, infrared, and the proton and carbon-13 nuclear magnetic resonance spectra of 2,6-dimethyl-4-(p-nitrophenylimino)pyran and its hydrobromide and methobromide salts, 303–9
Vibrational spectroscopy and conformations of 2-alkoxycarbonyl-3-aminoacrylic esters, 561–70
The hydrogen-stretching absorptions and conformations of tetralin-1-ol, chroman-4-ol, thiochroman-4-ol, and indan-1-ol derivatives, 944–7
Substituent effects in infrared spectroscopy. Part 6. Meta- and para-substituted N-ammoniobenzamidates, 1206–10
Relationship of the oxygen-17 chemical shift to the stretching frequency of the hydroxy group in saturated alcohols, 1558–61
IRON
Photogalvanic cells. Part 14. The synthesis and characterization of disulfonated thionines, 794–800
IRRADN
Radiation mechanisms. Part 21. Electron spin resonance studies of the effect of ionizing radiation on halobenzenes: the formation of σ^* anions and ipso addition radicals, 185–92
ISOBUTYRALDEHYDE
Chemical ionization mass spectra of selected C_4H_8O compounds, 1544–53
ISOCORYMINE
The determination, by proton nuclear magnetic resonance studies, of some stereochemical features in the alkaloids isocorymine, erinine, erinicine, and eripine, 725–9
ISOCYANATE
The pyridine-catalyzed reaction of methanol with phenyl isocyanate in tetrachloromethane, 664–9
The kinetics and mechanism of the spontaneous hydrolysis of 4-chlorophenyl isocyanate in diethyl ether solution, 901–4
ISOMER
Unimolecular reactions of isolated organic ions: some isomers of $C_6H_{14}^{\bullet+}$, 958–66
Chemical ionization mass spectra of selected C_4H_8O compounds, 1544–53
ISOMERISM
Restricted rotation in methyl- and cyanomethyl-tris-(2,4,6-trimethylphenyl)phosphonium compounds. A proton nuclear magnetic resonance spectroscopic study. The crystal structure of cyanomethyltris-(2,4,6-trimethylphenyl)phosphonium tetraiodomercurate(II), 1099–104
An analysis of the proton and carbon-13 nuclear magnetic resonance spectra of 3-tert-butylaminoacrolein and of glyoxal-tert-butylhydrazone, 1283–6
ISOMERIZATION
Naphthalene tetrachlorides and related compounds. Part 9. Structures and reactions of some 2-methylnaphthalene tetrachlorides, 42–8
Solid-state transformations and crystal structure analysis of α- and

ISOMERIZATION(contd)
β–o–acetamidobenzamide, 233–8
Isomerization of cis–1,2–diarylethylenes. Catalysis by selenium, methanesulfonic acid, and potassium tert–butoxide, 324–6
An electron spin resonance study of pentenynyl and pentadiynyl radicals, 553–60
Vibrational spectroscopy and conformations of 2–alkoxycarbonyl–3–aminoacrylic esters, 561–70
Configurations and conformations of the oximes, O–methyl oximes, and N–methylnitrones derived from chalcones, 860–5
Kinetics and intermediates in the several forward and reverse reactions of nitro–substituted arenediazonium ions with hydroxide ion, 1221–9
Electron spin resonance studies. Part 62. Acid–catalyzed interconversion of *β*–hydroxyalkyl radicals: radical–cation intermediates, 1401–5
The effect of salt formation on structure and charge distribution in imines. Part 4. Energy barriers to isomerization about the carbon–nitrogen bond in 2,6–dimethyl–4–aryliminopyrans and their salts: solvent and substituent effects, and evidence for isomerization mechanisms, 1501–7
ISOPROPYL
Model calculations of isotope effects. Part 5. Secondary hydrogen isotope effects in the solvolysis of isopropyl halides, 1316–24
ISOPROPYLIDENESUCCINIC
Photochromic heterocyclic fulgides. Part 3. The use of (E)–α–(2,5–dimethyl–3–furylethylidene)(isopropylidene)succinic anhydride as a simple convenient chemical actinometer, 341–3
ISOPROPYLSULFINYLHYDRAZINE
Conformational studies by dynamic nuclear magnetic resonance spectroscopy. Part 21. Structure, conformation, and stereodynamics of sulfinylhydrazines, 1449–53
ISOTOPE
Studies on the mechanism of the enolization reaction of Grignard reagents and ketones. Part 2. Pseudo–first–order rate and deuterium isotope effect studies, 473–7
Ipso attack in the nitration of aromatic amines. Part 1. The reactions of N,N–dimethyl–p–toluidine and some related compounds, 518–25
Selectivity in the halogenation of hexane by tertiary aminium radicals from the photodecomposition of N–haloammonium perchlorates, 545–52
The pyridine–catalyzed reaction of methanol with phenyl isocyanate in tetrachloromethane, 664–9
Kinetic hydrogen isotope effects in intermolecular hydride transfer from arylalkanes to 9–arylfluoren–9–yl cations, 684–91
Spontaneous and base–catalyzed elimination from 1–ferrocenylalkyl cations, 924–30
α–, *β*–, and γ–Deuterium isotope effects in the solvolysis of octan–2–yl p–bromobenzenesulfonate in 88% aqueous trifluoroethanol and 83% aqueous hexafluoroisopropyl alcohol, 985–90
Methanolysis of the benzylideneaniline derivatives $ArC(MMe_3)=NAr'$ (M = Si or Sn), 1043–50
Cleavages of 1–methyl–2–trimethylsilylbenzimidazole and 2–trimethylsilylbenzothiazole in methanol and related media, 1051–6
Kinetic and equilibrium solvent isotope effects on the deprotonation of a salicylate ion by hydroxide ion and general bases, 1304–8
Model calculations of isotope effects. Part 5. Secondary hydrogen isotope effects in the solvolysis of isopropyl halides, 1316–24
The kinetics and mechanism of the hydrolysis of thiol esters in aqueous solution promoted by tetrachlorogold(III) ions, 1406–10
Kinetic deuterium solvent isotope effects on the general acid–catalyzed dissociation of metal cryptates, 1486–91
JAHN
Preparation and spectroscopic properties of pure tetrabenzoporphyrins, 1005–9
KETENIMINE
Electronic spectra and electronic structures of ketenimines and carbodiimides, 270–80
KETONE
The synthesis of 1,4–disubstituted bicyclo[2.2.2]octanes exhibiting wide–range, enantiotropic nematic phases, 26–31
Studies on the mechanism of the enolization reaction of Grignard reagents and ketones. Part 2. Pseudo–first–order rate and deuterium isotope effect studies, 473–7
Acetyl exchange between acetyl chloride and sterically hindered aryl ketones under Friedel–Crafts conditions, 830–7
Nuclear magnetic resonance investigations of iminium ion intermediates. Part 9. Multinuclear study of the reaction between Lewis acids and vinylogous amides, 912–17
Reactions of oxygenated radicals in the gas phase. Part 8. Reactions of alkoxyl radicals with aldehydes and ketones, 1036–42
Electrogeneration of cyanomethyl anion from phenylsulfonylacetonitrile and cyanomethyltrimesitylphosphonium iodide and the relative acidities of XCH_2CN (X = Ph_3P^+, Ph_3As^+, Mes_3P^+, or $PhSO_2$) versus acetic acid in acetonitrile, 1093–8
KINETIC
An electron spin resonance study of pentenynyl and pentadiynyl radicals, 553–60
KINETICS
Naphthalene tetrachlorides and related compounds. Part 9. Structures and reactions of some 2–methylnaphthalene tetrachlorides, 42–8
Perchlorate esters. Part 3. Correlation of the rates of reaction of arenesulfonate ions with methyl perchlorate in acetonitrile, 49–52
1,8–Diacetylnaphthalene and its cyclization to 3–methyl–1H–phenalen–1–one, 58–61
General acid inhibition and the absence of deuterium isotope exchange in base catalyzed hydrolysis of 2,4–dinitrophenyl arylmethanesulfonate esters in aqueous solution, 65–71
Nitration in aqueous nitric acid: the rate profile and the limiting reaction rates, 94–9
Methanolysis (solvolysis) and synthesis of 4'–substituted 4–benzyloxybenzyl chlorides and some related compounds: comparisons with the corresponding benzoyl compounds, 100–3
Elimination and hydrolysis reactions of 4–alkoxyimino–5,6–dihydro–6–alkoxyaminopyrimidin–2(1H)–ones and 4–alkoxyimino–5–fluoro–5,6–dihydro–6–alkoxyaminopyrimidin–2(1H)–ones in strong acid media, 113–20
Ring–opening reactions of some 1–ethoxycarbonylaziridines with acetic acid in cyclohexane, 121–6
The acid–catalyzed hydrolysis of episulfoxides, 132–9
The influence of remote substituents on amide bond formation. The reaction of oxazolinones with benzylamine, 140–2
Reactions of 1,1–dialkoxyalkene radical cations in aqueous solution with OH^-, HPO_4^{2-}, and H_2O. Electron spin resonance spectroscopic, pulse conductometric, and product analytical studies, 143–54
An electron spin resonance study of alkyl radical addition to diethyl vinylphosphonate, 161–6
Leaving group effects in thiolester hydrolysis. Part 2. On the possibility of an elimination–addition (keten) mediated pathway in S–acetylcoenzyme A basic hydrolysis and acetyl transfer, 171–4
A kinetic study of the mechanisms of S_NAr reactions of neutral and cationic metal–complex haloarenes with methoxide ion, 193–200
Nucleophilic substitution at sulfonyl sulfur. Part 1. Reactivity of thiophene–2–sulfonyl halides in water and methanol–acetonitrile, 221–7
Reactions of N–heteroaromatic bases with nitrous acid. Part 6. Kinetics of the nitrosation of 2– and 4–methylaminopyridine and their 1–oxide derivatives, 239–47
Reactions of N–heteroaromatic bases with nitrous acid. Part 7. Kinetics of the nitrosation of secondary and of the diazotization of primary *β*–aminopyridines, 248–55
Aromatic C–nitroso compounds. Thermodynamics and kinetics of the equilibrium between 2,6–dimethylnitrosobenzene and its trans–dimer, 256–9
Function micellar catalysis. Part 4. Catalysis of activated ester hydrolysis by surfactant systems as chymotrypsin models, 260–5
Kinetics and mechanisms of the Bamberger rearrangement. Part 3. Rearrangement of phenylhydroxylamines to p–aminophenols in aqueous sulfuric acid solutions, 298–302
Isomerization of cis–1,2–diarylethylenes. Catalysis by selenium, methanesulfonic acid, and potassium tert–butoxide, 324–6
Nucleophilicity of phenolates in the reaction with p–nitrophenyl acetate in ethanol, 327–30
On the mechanism of the action of thermolysin: kinetic study of the thermolysin–catalyzed condensation reaction of N–benzyloxycarbonyl–L–aspartic acid with L–phenylalanine methyl ester, 356–60
Catalysis of N–nitrosation and diazotization by thiourea and thiocyanate ion, 361–5
The Friedel–Crafts acetylatin of naphthalene. Evidence for concurrent second– and third–order reactions, 376–8
Oxidation of organic sulfides by chlorine and iodosylbenzene diacetate: kinetics and mechanism, 382–7
Linear free energy relationships in the thiophene series. Part 2. The kinetics of the reactions of some 2–bromo–3–nitro–5–X–thiophenes with substituted anilines in methanol, 388–92

KINETICS(contd)
The kinetics of the reaction of phenyl 2,4,6–trinitrophenyl ether with aniline in methanol, acetonitrile, tetrahydrofuran, ethyl acetate, and benzene, 399–402
Pyridine nitrogen reactivity, 409–13
Reaction of N,N'–dimethylimidazolidine–2–thione with methyl iodide. Kinetic and thermodynamic aspects, 414–18
Autoxidation of alkyl compounds of zirconium and hafnium, 419–23
Enhanced reactivities in substitution and elimination reactions in dimethyl sulfoximide, 432–7
Nucleophilic substitution at sulfonyl sulfur. Part 2. Hydrolysis and alcoholysis of aromatic sulfonyl chlorides, 438–41
Studies on the mechanism of the enolization reaction of Grignard reagents and ketones. Part 2. Pseudo–first–order rate and deuterium isotope effect studies, 473–7
The separation of polar and steric effects. Part 14. Kinetics of the reactions of benzoic acid and of ortho–substituted benzoic acids with diazodiphenylmethane in various alcohols, 500–8
Ipso attack in the nitration of aromatic amines. Part 1. The reactions of N,N–dimethyl–p–toluidine and some related compounds, 518–25
The stabilities of Meisenheimer complexes. Part 24. Some reactions of 2,4,6–trinitrotoluene and 2,4,6–trinitrobenzyl chloride with bases, 526–32
The stabilities of Meisenheimer complexes. Part 25. Kinetic studies of the reaction of 1,3,5–trinitrobenzene with aliphatic amines in dimethyl sulfoxide, 533–9
Kinetics and mechanism of the reactions of primary amines with pyrylium cations, 571–5
Stepwise proton transfer in the acid–catalyzed hydrolysis of 3,1–benzoxazin–4–ones: electrostatic or hydrogen–bond stabilization of the conjugate acid, 590–6
Catalysis in aromatic nucleophilic substitution. Part 5. Reactions of piperidine with methyl 2–methoxy–3–nitrothiophene–5–carboxylate and 5–acetyl–2–methoxy–3–nitrothiophene, 642–4
The one–electron reduction of carbonium ions. Part 14. Effect of successive introduction of methyl substituents on the reducibility of tropylium ion in chromium(II) ion and cathodic reductions, 670–4
Electrophilic aromatic substitution. Part 28. Rate factors for protiodetritiation of all positions of hexahelicene (benzo[c]naphtho[1,2–g]phenanthrene): the reactivity of bent benzene rings, 675–83
Kinetic hydrogen isotope effects in intermolecular hydride transfer from arylalkanes to 9–arylfluoren–9–yl cations, 684–91
Photolysis of the carbon–hydrogen bond in pentamethylcyclopentadiene. Properties of the pentamethylcyclopentadienyl radical, 692–6
The relative efficiencies of a number of nitrite traps at different acidities and bromide ion concentrations, 699–702
Mechanisms for aromatic photocyanation: naphthalene and biphenyl, 713–19
The separation of polar and steric effects. Part 15. Kinetics of the reactions of benzoic acid and of ortho–substituted benzoic acids with diazodiphenylmethane in various aprotic solvents, 720–4
Molecular interactions in nonaqueous solvents. Part 3. Kinetics and energetics of dimerization of a tetrasubstituted copper(II) phthalocyanine dye, 765–9
The stabilities of Meisenheimer complexes. Part 26. The reactions of some aromatic nitro compounds with base in tert–butyl alcohol–water mixtures, 807–11
Anion activation by the bulky perhydrotribenzo[2.2.2]cryptand in aqueous–organic two–phase systems and in low polarity media. A comparison with the anionic reactivity induced by [2.2.2,C_{14}]cryptand, 821–4
The anodic oxidation of 1,4–diaminobenzene: an electron spin resonance and electrochemical study, 825–9
Acetyl exchange between acetyl chloride and sterically hindered aryl ketones under Friedel–Crafts conditions, 830–7
Electrophilic aromatic substitution. Part 25. The nitration in aqueous sulfuric acid of some cinnamic acids and other styrene derivatives, 842–7
Electrophilic aromatic substitution. Part 26. The kinetics and mechanism of nitration of some reactive benzene derivatives in aqueous phosphoric acid. The identification of steps rate–limited by nitronium ion formation and by diffusion, 848–51
Configurations and conformations of the oximes, O–methyl oximes, and N–methylnitrones derived from chalcones, 860–5
The kinetics of the reactions of picryl chloride with some substituted anilines. Part 7. 2–Substituted and 2,5–disubstituted anilines, 883–5
Benzoquinone imines. Part 17. Kinetics and mechanism of the hydrolysis and cyclization of 2–aminoindophenols in aqueous solution, 886–9
Free radical reactions of the phenothiazine, metiazinic acid, 890–5
A laser flash photolysis study of tert–butoxyphosphoranyl radicals. Optical spectra and kinetics of formation, fragmentation, and rearrangement, 905–11
Spontaneous and base–catalyzed elimination from 1–ferrocenylalkyl cations, 924–30
Protiodesilylation of substituted 2–trimethylsilylthiophenes, 931–4
Dienone–phenol rearrangements of bicyclic cyclohexa–2,5–dien–1–ones; kinetic studies of the importance of a multistage mechanism 935–9
Solvolysis of some alkyl esters of fluorosulfuric acid in water and aqueous solvents, 940–3
The ring–opening reactions of cyclobutylmethyl and cyclobutenylmethyl radicals, 970–4
α–, β–, and γ–Deuterium isotope effects in the solvolysis of octan–2–yl p–bromobenzenesulfonate in 88% aqueous trifluoroethanol and 83% aqueous hexafluoroisopropyl alcohol, 985–90
Reactions of nitroanisoles. Part 2. Reactions of 2,4– and 2,6–dinitroanisole with piperidines in benzene, 995–9
Photocyclization of aryl halides. Part 2. The upper excited state reactivity of 3–(2–haloanilino)–1,3–diphenylprop–2–enones: hydrogen–bonded configurational lock in photosynthesis, 1010–14
Alkyl nitrites as nitrosating agents. Kinetics and mechanism of the reactions of propyl nitrite in propan–1–ol, 1021–4
Reactions of oxygenated radicals in the gas phase. Part 8. Reactions of alkoxyl radicals with aldehydes and ketones, 1036–42
Methanolysis of the benzylideneaniline derivatives ArC(MMe_3)=NAr' (M = Si or Sn), 1043–50
Cleavages of 1–methyl–2–trimethylsilylbenzimidazole and 2–trimethylsilylbenzothiazole in methanol and related media, 1051–6
Complexation between 3–methylorotic (3–methyluracil–6–carboxylic) acid dianion and divalent metal cations. The slow acid dissociation of transition metal complexes and its possible relevance to orotic acid phosphoribosylation, 1057–61
Small rings. Part 32. The gas phase kinetics, mechanism, and energy hypersurface for the thermolyses of syn– and anti–tricyclo[4.2.0.$0^{2,5}$]octane, 1076–83
Kinetics of the reactions of phenyl 2,4,6–trinitrophenyl ether with piperidine, n–butylamine, aniline, benzylamine, and morpholine in benzene, 1105–7
Aroyl peroxides. Part 7. The effects of additives on the thermolysis of aroyl peroxides in arenes and the elimination of possible complications in the measurement of partial rate factors for phenylation, 1109–20
Free radical reactions in solution. Part 6. Thermal decomposition of substituted dibenzyl mercurials in solution. An improved $\sigma\cdot$ scale 1121–6
Electron spin resonance study of inversion and conformations in 1–hydroxycyclohexyl radicals, 1143–7
Electrophilic aromatic substitution. Part 29. Protiodetritiation of 4H–cyclopenta[def]phenanthrene: the substituent activation factor A_f, 1153–6
The dependence on temperature of rate constants for solvolysis of alkyl halides and related compounds in water, 1157–60
Kinetics and mechanism of the oxidation of 3,5–di–tert–butyl–o–benzoquinone with hydrogen peroxide in aqueous methanol solution, 1176–9
Kinetics of the reactions of aniline and 2,2,2–trifluoroethylamine with 1,3,5–trinitrobenzene in dimethyl sulfoxide and acetonitrile, and of 2,2,2–trifluoroethylamine with 1–fluoro– and 1–chloro–2,4–dinitrobenzenes in these solvents, 1201–5
Kinetics and intermediates in the several forward and reverse reactions of nitro–substituted arenediazonium ions with hydroxide ion, 1221–9
Flash photolysis study of phenyl–substituted phenols, quinones, and corresponding free radicals. Part 2. Dimerization of 2,6–diphenyl–4–methoxyphenoxyl radical in various solvents, 1234–6
Kinetics and mechanism of the reaction of substituted phenylhydrazones with thallium(III) acetate. Reactions of mercury(II) acetate with nitrogen compounds. Part 8, 1243–6
Gas–phase thermolyses. Part 5. Thermally–induced rearrangement

KINETICS(contd)
of methyl acetate in the gas phase, 1256–9
Radical–anion intermediates. Part 8. The influence of a crown ether on the fluorene and 9–methylfluorene radical–anions, 1295–7
Kinetic and equilibrium solvent isotope effects on the deprotonation of a salicylate ion by hydroxide ion and general bases, 1304–8
Unimolecular solvolysis of some organosilicon perchlorates and iodides, 1309–15
Mononuclear heterocyclic rearrangements. Part 7. Evidence for general base catalysis in the rearrangement of the Z–phenylhydrazone of 3–benzoyl–5–phenyl–1,2,4–oxadiazole into 2,5–diphenyl–4–benzoylamino–1,2,3–triazole in dioxane–water, 1325–8
A nondestructive reactivity index of carbohydrates. The hydroxy protonation rates in dimethyl sulfoxide, 1329–35
Intramolecular catalysis in the enolization of β–piperidinopropiophenone and its methiodide derivative, 1351–7
Electrophilic aromatic substitution. Part 27. Chemical selectivities disguised by mass diffusion. Part 6. The kinetics of nitration in aqueous sulfuric acid of durene, nitrodurene, and nitroprehnitene. A comparison of the rates of nitration of methylnitrobenzenes in aqueous sulfuric acid with the corresponding rates from mixing–disguised nitrations with nitronium hexafluorophosphate in nitromethane based on a theoretical mixing–reaction model, 1358–66
Routes to 3–bromoflavanone from erythro–2'–hydroxychalcone dibromide: spectral and kinetic evidence for the dominating role of elimination–addition sequences via (E)– and (Z)–α–bromo–2'–hydroxychalcones, 1367–73
The kinetics and mechanism of the hydrolysis of thiol esters in aqueous solution promoted by tetrachlorogold(III) ions, 1406–10
Gas–phase methylation of phenol and anisole by dimethylhalonium ions, 1430–6
Thermal decomposition of diazodiphenylmethane catalyzed by sulfur compounds in the presence of oxygen, 1437–42
An investigation of the two step nature of Sandmeyer reaction, 1459–61
Kinetic deuterium solvent isotope effects on the general acid–catalyzed dissociation of metal cryptates, 1486–91
Mechanism of base–catalyzed hydrogen–deuterium exchange in thiazolium ion: evidence for the involvement of a tetrahedral intermediate, 1538–43
Kinetic and equilibrium acid–base properties of strong naphthalenediamine bases, 1562–5
1,8–Dimorpholinonaphthalene: proton transfer reactions, 1566–71
The influence of the solvent on organic reactivity. Part 4. Spectroscopic parameters of Lewis basicity and acidity of hydroxylic solvents. A comprehensive correlation analysis of the log k values for the reactions of diazodiphenylmethane with benzoic acid in aprotic and hydroxylic solvents at 37°C, 1572–6
Kinetics and mechanisms of the Bamberger rearrangement. Part 4. Rearrangement of sterically hindered phenylhydroxylamines to 4–aminophenols in aqueous sulfuric acid solution, 1596–8
The kinetics and mechanisms of aromatic halogen substitution. Part 35. The directive effect of the benzoyloxy substituent, 1629–32
KINTICS
The kinetics and mechanism of the spontaneous hydrolysis of 4–chlorophenyl isocyanate in diethyl ether solution, 901–4
LANTHANIDE
Alteration of the cis:trans isomer ratio in N–methylformamide using lanthanide shift reagents. Determination of the equilibrium constants for complexation, 1481–5
LENGTH
Nonsupported and resin–supported oligo(oxyethylenes) as solid–liquid phase–transfer catalysts. Effect of chain length and head–group, 514–17
LEWIS
Nuclear magnetic resonance investigations of iminium ion intermediates. Part 9. Multinuclear study of the reaction between Lewis acids and vinylogous amides, 912–17
LFER
Perchlorate esters. Part 3. Correlation of the rates of reaction of arenesulfonate ions with methyl perchlorate in acetonitrile, 49–52
Nucleophilic substitution at sulfonyl sulfur. Part 1. Reactivity of thiophene–2–sulfonyl halides in water and methanol–acetonitrile 221–7
Linear free energy relationships in the thiophene series. Part 2. The kinetics of the reactions of some 2–bromo–3–nitro–5–X–thiophenes with substituted anilines in methanol, 388–92
An electron spin resonance study on the interactions between bis(pentane–2,4–dionato)copper(II) and some heterocycles. Part 2. The 1:1 adducts with aza–aromatic compounds and azacyclohexanes, 652–5
Free energy relationships of ionization energies measured by ultraviolet photoelectron spectroscopy in substituted pyrroles, 656–9
A hyperbolic modification of linear free energy relationships, 1084–8
Free radical reactions in solution. Part 6. Thermal decomposition of substituted dibenzyl mercurials in solution. An improved $\sigma\cdot$ scale 1121–6
Kinetics and intermediates in the several forward and reverse reactions of nitro–substituted arenediazonium ions with hydroxide ion, 1221–9
Linear free energy relationships. Part 10. Synthesis, thermal, spectral, electrochemical, and hole transport (conduction) properties of some novel carbazole derivatives, 1267–73
Ionization constants of 3–substituted propiolic acids in water, 1341–3
1,8–Dimorpholinonaphthalene: proton transfer reactions, 1566–71
The influence of the solvent on organic reactivity. Part 4. Spectroscopic parameters of Lewis basicity and acidity of hydroxylic solvents. A comprehensive correlation analysis of the log k values for the reactions of diazodiphenylmethane with benzoic acid in aprotic and hydroxylic solvents at 37°C, 1572–6
LIGAND
Electron spin resonance studies of thiophosphoranyl radicals. The mechanism of ligand permutation in phosphoranyl radicals, 1211–20
LITHIUM
Linewidth alternation in the electron spin resonance spectrum of the fluorene radical anion in the presence of dibenzo crown ethers, 1384–91
LUMINESCENCE
Conformational equilibrium in 1,2–diarylethylenes manifested in their emission in solution. Part 5. 2,6–Distyrylnaphthalene and related compounds, 1264–6
MACROCYCLE
The crystal structures of a macrocycle containing 2,6–pyridino and piperazino subunits and of the tetrachlorocobaltate(II) salt of its diprotonated cation, 331–5
MAGNESIUM
Thermochemical bond dissociation energies of carbon–magnesium bonds, 464–7
Preparation and spectroscopic properties of pure tetrabenzoporphyrins, 1005–9
MAGNETIC
Nuclear magnetic resonance studies of the conformation of bilirubin and its derivatives in solution, 1374–83
MECHANICS
Determination of ring inversion barriers for 1H,3H–naphtho[1,8–cd]pyran and its methyl substituted derivatives by molecular mechanics calculations and dynamic nuclear magnetic resonance spectroscopy, 741–6
MECHANISM
The effect of changing the substituent in the sulfonyl group in base catalyzed hydrolysis of 2,4–dinitrophenyl arylmethanesulfonate esters in aqueous solution, 72–7
Orientation in photochemical substitution of phenyl and methyl radicals in toluene: MO calculation, 110–12
Ring–opening reactions of some 1–ethoxycarbonylaziridines with acetic acid in cyclohexane, 121–6
The acid–catalyzed hydrolysis of episulfoxides, 132–9
Leaving group effects in thiolester hydrolysis. Part 2. On the possibility of an elimination–addition (keten) mediated pathway in S–acetylcoenzyme A basic hydrolysis and acetyl transfer, 171–4
Reactions of N–heteroaromatic bases with nitrous acid. Part 7. Kinetics of the nitrosation of secondary and of the diazotization of primary β–aminopyridines, 248–55
Function micellar catalysis. Part 4. Catalysis of activated ester hydrolysis by surfactant systems as chymotrypsin models, 260–5
Electrophilic substitution in naphthalenes: cyclization of naphthylbutanols of tetrahydrophenanthrene, 286–97
Kinetics and mechanisms of the Bamberger rearrangement. Part 3. Rearrangement of phenylhydroxylamines to p–aminophenols in aqueous sulfuric acid solutions, 298–302
Mechanistic studies in the chemistry of urea. Part 9. Reactions of 1,2–diaminoethane and related compounds with urea and N–alkylated ureas, 317–19

MECHANISM(contd)
Nucleophilicity of phenolates in the reaction with p–nitrophenyl acetate in ethanol, 327–30
Polarography of some arylazothiohydantoin derivatives, 344–9
On the mechanism of the action of thermolysin: kinetic study of the thermolysin–catalyzed condensation reaction of N–benzyloxycarbonyl–L–aspartic acid with L–phenylalanine methyl ester, 356–60
Oxidation of organic sulfides by chlorine and iodosylbenzene diacetate: kinetics and mechanism, 382–7
Autoxidation of alkyl compounds of zirconium and hafnium, 419–23
Studies on the mechanism of the enolization reaction of Grignard reagents and ketones. Part 2. Pseudo–first–order rate and deuterium isotope effect studies, 473–7
The mechanism for interconversion of stereoisomers in N–(2,3–dihydro–2–oxobenzoxazol–3–yl)– and N–(1,2–dihydro–2–oxoquinolin–1–yl)–N–1–methylallylarenesulfenamides, 509–13
Ipso attack in the nitration of aromatic amines. Part 1. The reactions of N,N–dimethyl–p–toluidine and some related compounds, 518–25
The stabilities of Meisenheimer complexes. Part 24. Some reactions of 2,4,6–trinitrotoluene and 2,4,6–trinitrobenzyl chloride with bases, 526–32
Electrophilic ipso–substitutions. Part 1. Reaction of 3–substituted indoles with nitronium and nitrosonium ions, 628–32
The polarization and charge–transfer (PCT) theoretical model for the prediction and the interpretation of the relationship between reactivity and selectivity, 645–51
The pyridine–catalyzed reaction of methanol with phenyl isocyanate in tetrachloromethane, 664–9
Reactions of the methylthiyl radical with unsaturated cycloalkanes: abstraction, addition, and rearrangement, 703–7
A theoretical investigation of the π–polarization mechanism. The importance of localized and extended polarization, 760–4
The wavelength– and solvent–dependent photochemistry of 1,1–dicyano–2–methyl–4–phenylbut–1–ene; reaction from two excited states, 774–82
Oxidation by cobalt(III) acetate. Part 3. Allylic oxidation of various olefins in acetic acid, 817–20
Acetyl exchange between acetyl chloride and sterically hindered aryl ketones under Friedel–Crafts conditions, 830–7
Electrophilic aromatic substitution. Part 26. The kinetics and mechanism of nitration of some reactive benzene derivatives in aqueous phosphoric acid. The identification of steps rate–limited by nitronium ion formation and by diffusion, 848–51
Benzoquinone imines. Part 17. Kinetics and mechanism of the hydrolysis and cyclization of 2–aminoindophenols in aqueous solution, 886–9
The kinetics and mechanism of the spontaneous hydrolysis of 4–chlorophenyl isocyanate in diethyl ether solution, 901–4
Dienone–phenol rearrangements of bicyclic cyclohexa–2,5–dien–1–ones; kinetic studies of the importance of a multistage mechanism 935–9
Solvolysis of some alkyl esters of fluorosulfuric acid in water and aqueous solvents, 940–3
Unimolecular reactions of isolated organic ions: some isomers of $C_6H_{14}^{\bullet+}$, 958–66
Photocyclization of aryl halides. Part 2. The upper excited state reactivity of 3–(2–haloanilino)–1,3–diphenylprop–2–enones: hydrogen–bonded configurational lock in photosynthesis, 1010–14
Alkyl nitrites as nitrosating agents. Kinetics and mechanism of the reactions of propyl nitrite in propan–1–ol, 1021–4
Electrogeneration of cyanomethyl anion from phenylsulfonylacetonitrile and cyanomethyltrimesitylphosphonium iodide and the relative acidities of XCH_2CN (X = Ph_3P^+, Ph_3As^+, Mes_3P^+, or $PhSO_2$) versus acetic acid in acetonitrile, 1093–8
Flash photolysis study of phenyl–substituted phenols, quinones, and corresponding free radicals. Part 3. Intermediates in the photolysis of phenyl–substituted phenols, 1237–9
A kinetic analysis of the acidic degradation of penicillin G and confirmation of penicillamine as a degradation product, 1247–51
Gas–phase thermolyses. Part 5. Thermally–induced rearrangement of methyl acetate in the gas phase, 1256–9
Unimolecular solvolysis of some organosilicon perchlorates and iodides, 1309–15
Model calculations of isotope effects. Part 5. Secondary hydrogen isotope effects in the solvolysis of isopropyl halides, 1316–24
Intramolecular catalysis in the enolization of β–piperidinopropiophenone and its methiodide derivative, 1351–7
Electron spin resonance studies. Part 62. Acid–catalyzed interconversion of β–hydroxyalkyl radicals: radical–cation intermediates, 1401–5
The kinetics and mechanism of the hydrolysis of thiol esters in aqueous solution promoted by tetrachlorogold(III) ions, 1406–10
The photochemistry of sulfoxides. A CIDNP study of carbon–sulfur bond cleavage paths, 1417–29
An investigation of the two step nature of Sandmeyer reaction, 1459–61
The effect of salt formation on structure and charge distribution in imines. Part 4. Energy barriers to isomerization about the carbon–nitrogen bond in 2,6–dimethyl–4–aryliminopyrans and their salts: solvent and substituent effects, and evidence for isomerization mechanisms, 1501–7
Electroorganic reactions. Part 17. The competition between cleavage and ylide formation in the cathodic reduction of benzyl–allyl–, cinnamyl–, and polyenylphosphonium salts, 1520–3
Mechanism of base–catalyzed hydrogen–deuterium exchange in thiazolium ion: evidence for the involvement of a tetrahedral intermediate, 1538–43
1,8–Dimorpholinonaphthalene: proton transfer reactions, 1566–71
Ion–molecule reactions in the gas phase. Part 1. Stereospecific nucleophilic substitution of tertiary alcohols by ammonia, 1591–5
Anodic oxidation of carboxamides. Part 3. The mechanism of anodic cyclization of N–methylcarbanilides, 1599–605
MEISENHEIMER
The stabilities of Meisenheimer complexes. Part 24. Some reactions of 2,4,6–trinitrotoluene and 2,4,6–trinitrobenzyl chloride with bases, 526–32
The stabilities of Meisenheimer complexes. Part 26. The reactions of some aromatic nitro compounds with base in tert–butyl alcohol–water mixtures, 807–11
Kinetics of the reactions of aniline and 2,2,2–trifluoroethylamine with 1,3,5–trinitrobenzene in dimethyl sulfoxide and acetonitrile, and of 2,2,2–trifluoroethylamine with 1–fluoro– and 1–chloro–2,4–dinitrobenzenes in these solvents, 1201–5
MERCURY
Free radical reactions in solution. Part 6. Thermal decomposition of substituted dibenzyl mercurials in solution. An improved $\sigma_\bullet$ scale 1121–6
MESOBILIRUBIN
Nuclear magnetic resonance studies of the conformation of bilirubin and its derivatives in solution, 1374–83
METAL
Methanolysis of the benzylideneaniline derivatives $ArC(MMe_3)=NAr'$ (M = Si or Sn), 1043–50
Complexation between 3–methylorotic (3–methyluracil–6–carboxylic) acid dianion and divalent metal cations. The slow acid dissociation of transition metal complexes and its possible relevance to orotic acid phosphoribosylation, 1057–61
Aroyl peroxides. Part 7. The effects of additives on the thermolysis of aroyl peroxides in arenes and the elimination of possible complications in the measurement of partial rate factors for phenylation, 1109–20
Radical–induced hydrogen exchange in the presence of reducing transition metal ions, 1230–3
Linewidth alternation in the electron spin resonance spectrum of the fluorene radical anion in the presence of dibenzo crown ethers, 1384–91
Kinetic deuterium solvent isotope effects on the general acid–catalyzed dissociation of metal cryptates, 1486–91
METALLO
A kinetic study of the mechanisms of S_NAr reactions of neutral and cationic metal–complex haloarenes with methoxide ion, 193–200
METALLOCRYPTATE
Kinetic deuterium solvent isotope effects on the general acid–catalyzed dissociation of metal cryptates, 1486–91
METALLOHALOBENZENE
A kinetic study of the mechanisms of S_NAr reactions of neutral and cationic metal–complex haloarenes with methoxide ion, 193–200
METASTABLE
Metastable decomposition of $C_3H_6O^{\bullet+}$ ions, 770–3
METHANEDIAZONIUM
A theoretical investigation of the energy and structure of ion–molecule pairs in polar solvents. Part 2. Methanediazonium cation in water, 488–93
METHANESULFONATE
Anion activation by the bulky perhydrotribenzo[2.2.2]cryptand in

METHANESULFONATE(contd)
aqueous–organic two–phase systems and in low polarity media. A comparison with the anionic reactivity induced by [2.2.2,C_{14}]cryptand, 821–4
METHANOL
The pyridine–catalyzed reaction of methanol with phenyl isocyanate in tetrachloromethane, 664–9
Induction of instantaneous chain reactions in the peroxodiphosphate–iron(II) system by selected substrates during a titrimetric procedure, 1280–2
METHANOLYSIS
Methanolysis (solvolysis) and synthesis of 4'–substituted 4–benzyloxybenzyl chlorides and some related compounds: comparisons with the corresponding benzoyl compounds, 100–3
Methanolysis of the benzylideneaniline derivatives $ArC(MMe_3)=NAr'$ (M = Si or Sn), 1043–50
Unimolecular solvolysis of some organosilicon perchlorates and iodides, 1309–15
METHOXIDE
A kinetic study of the mechanisms of S_NAr reactions of neutral and cationic metal–complex haloarenes with methoxide ion, 193–200
Unsymmetrically substituted furoxans. Part 6. 3–Nitro–4–phenylfuroxan: reaction with sodium methoxide and x–ray structural analysis, 1240–2
METHOXYCARBONYLHELICENE
Diastereoisomeric charge–transfer complexes. Measurement of thermodynamic constants by proton nuclear magnetic resonance spectroscopy, 350–2
METHOXYFLAVONE
pH–dependent fluorescence spectroscopy. Part 12. Flavone, 7–hydroxyflavone, and 7–methoxyflavone, 1443–8
METHOXYNITROTHIOPHENE
Catalysis in aromatic nucleophilic substitution. Part 5. Reactions of piperidine with methyl 2–methoxy–3–nitrothiophene–5–carboxylate and 5–acetyl–2–methoxy–3–nitrothiophene, 642–4
METHOXYTHIOBENZOATE
The kinetics and mechanism of the hydrolysis of thiol esters in aqueous solution promoted by tetrachlorogold(III) ions, 1406–10
METHOXYTRICYCLONONADIENE
Cope interconversions of the 9–methoxy–endo–tricyclo[4.2.1.$0^{2,5}$]non–a–3,7–dienyl cation and its [4.3.0.$0^{2,5}$] tautomer. Evidence of enhanced ionic stability by delocalization of neighboring σ bonds 457–63
METHOXYTRICYCLONONANE
Cope interconversions of the 9–methoxy–endo–tricyclo[4.2.1.$0^{2,5}$]non–a–3,7–dienyl cation and its [4.3.0.$0^{2,5}$] tautomer. Evidence of enhanced ionic stability by delocalization of neighboring σ bonds 457–63
METHYL
Electrophilic substitution with rearrangement. Part 9. Dienones derived from brominations of o–, m–, and p–cresol, 32–41
Naphthalene tetrachlorides and related compounds. Part 9. Structures and reactions of some 2–methylnaphthalene tetrachlorides, 42–8
Perchlorate esters. Part 3. Correlation of the rates of reaction of arenesulfonate ions with methyl perchlorate in acetonitrile, 49–52
Orientation in photochemical substitution of phenyl and methyl radicals in toluene: MO calculation, 110–12
Solid–state transformations and crystal structure analysis of α– and β–o–acetamidobenzamide, 233–8
The effect of salt formation on the molecular structure and charge distribution in imines: the crystal and molecular structures and the ultraviolet, infrared, and the proton and carbon–13 nuclear magnetic resonance spectra of 2,6–dimethyl–4–(p–nitrophenylimino)pyran and its hydrobromide and methobromide salts, 303–9
The one–electron reduction of carbonium ions. Part 14. Effect of successive introduction of methyl substituents on the reducibility of tropylium ion in chromium(II) ion and cathodic reductions, 670–4
A theoretical investigation of the π–polarization mechanism. The importance of localized and extended polarization, 760–4
Configurations and conformations of the oximes, O–methyl oximes, and N–methylnitrones derived from chalcones, 860–5
Dienone–phenol rearrangements of bicyclic cyclohexa–2,5–dien–1–ones; kinetic studies of the importance of a multistage mechanism 935–9
The ring–opening reactions of cyclobutylmethyl and cyclobutenylmethyl radicals, 970–4
Complexation between 3–methylorotic (3–methyluracil–6–carboxylic) acid dianion and divalent metal cations. The slow acid dissociation of transition metal complexes and its possible relevance to orotic acid phosphoribosylation, 1057–61
Carbon–13 and proton nuclear magnetic resonance study of solvent effects on tautomerism in 1–aryl–3–methyltriazenes, 1161–5M.
Gas–phase thermolyses. Part 5. Thermally–induced rearrangement of methyl acetate in the gas phase, 1256–9
Conformation and stereodynamics of 2–dialkylamino–1,3–dimethyl–2,3–dihydro–1H–1,3,2–benzodiazaphospholes. An experimental nuclear magnetic resonance, ultraviolet photoelectron, and theoretical MNDO investigation, 1411–16
Chemical ionization mass spectra of selected C_4H_8O compounds, 1544–53
Relationship of the oxygen–17 chemical shift to the stretching frequency of the hydroxy group in saturated alcohols, 1558–61
Anodic oxidation of carboxamides. Part 3. The mechanism of anodic cyclization of N–methylcarbanilides, 1599–605
METHYLALLYL
The mechanism for interconversion of stereoisomers in N–(2,3–dihydro–2–oxobenzoxazol–3–yl)– and N–(1,2–dihydro–2–oxoquinolin–1–yl)–N–1–methylallylarenesulfenamides, 509–13
METHYLALLYLARENESULFENAMIDE
The mechanism for interconversion of stereoisomers in N–(2,3–dihydro–2–oxobenzoxazol–3–yl)– and N–(1,2–dihydro–2–oxoquinolin–1–yl)–N–1–methylallylarenesulfenamides, 509–13
METHYLAMINO
Reactions of N–heteroaromatic bases with nitrous acid. Part 6. Kinetics of the nitrosation of 2– and 4–methylaminopyridine and their 1–oxide derivatives, 239–47
Nuclear magnetic resonance investigations of iminium ion intermediates. Part 9. Multinuclear study of the reaction between Lewis acids and vinylogous amides, 912–17
METHYLAMINOPYRIDINE
Reactions of N–heteroaromatic bases with nitrous acid. Part 6. Kinetics of the nitrosation of 2– and 4–methylaminopyridine and their 1–oxide derivatives, 239–47
Reactions of N–heteroaromatic bases with nitrous acid. Part 7. Kinetics of the nitrosation of secondary and of the diazotization of primary β–aminopyridines, 248–55
METHYLAMMONIOBENZAMIDATE
Substituent effects in infrared spectroscopy. Part 6. Meta– and para–substituted N–ammoniobenzamidates, 1206–10
METHYLANESULFONATE
Isomerization of cis–1,2–diarylethylenes. Catalysis by selenium, methanesulfonic acid, and potassium tert–butoxide, 324–6
METHYLARYLIMINOPYRAN
The effect of salt formation on structure and charge distribution in imines. Part 4. Energy barriers to isomerization about the carbon–nitrogen bond in 2,6–dimethyl–4–aryliminopyrans and their salts: solvent and substituent effects, and evidence for isomerization mechanisms, 1501–7
METHYLARYLPYRANOIMINIUM
The effect of salt formation on structure and charge distribution in imines. Part 4. Energy barriers to isomerization about the carbon–nitrogen bond in 2,6–dimethyl–4–aryliminopyrans and their salts: solvent and substituent effects, and evidence for isomerization mechanisms, 1501–7
METHYLATION
Perchlorate esters. Part 3. Correlation of the rates of reaction of arenesulfonate ions with methyl perchlorate in acetonitrile, 49–52
Gas–phase methylation of phenol and anisole by dimethylhalonium ions, 1430–6
METHYLAZODIOXYBENZENE
Aromatic C–nitroso compounds. Thermodynamics and kinetics of the equilibrium between 2,6–dimethylnitrosobenzene and its trans–dimer, 256–9
METHYLBENZOTHIOPHENIUM
The crystal and molecular structure of 1,2,3,5–tetramethylbenzo[b]–thiophenium tetrafluoroborate and some theoretical calculations on the hypothetical 1H–thiophenium cation, 266–9
METHYLBENZOXAZOLIUM
Anodic oxidation of carboxamides. Part 3. The mechanism of anodic cyclization of N–methylcarbanilides, 1599–605
METHYLBENZYLAMINE
The influence of remote substituents on amide bond formation. The reaction of oxazolinones with benzylamine, 140–2
METHYLCARBANILIDE
Anodic oxidation of carboxamides. Part 3. The mechanism of anodic cyclization of N–methylcarbanilides, 1599–605

METHYLCYCLOPENTADIENYL
Photolysis of the carbon–hydrogen bond in pentamethylcyclopentadiene. Properties of the pentamethylcyclopentadienyl radical, 692–6
METHYLDIOXANEDIONE
Phenylhydrazone derivatives of Meldrum's acid: crystal and molecular structures of 2,2–dimethyl–1,3–dioxane–4,5,6–trione–5–(2–nitrophenylhydrazone) and 2,2–dimethyl–1,3–dioxane–4,5,6–trione–5–(2–chlorophenylhydrazone), 1454–8
METHYLDIOXANETRIONECHLOROPHENYLHYDRAZONE
Phenylhydrazone derivatives of Meldrum's acid: crystal and molecular structures of 2,2–dimethyl–1,3–dioxane–4,5,6–trione–5–(2–nitrophenylhydrazone) and 2,2–dimethyl–1,3–dioxane–4,5,6–trione–5–(2–chlorophenylhydrazone), 1454–8
METHYLDIOXANETRIONENITROPHENYLHYDRAZONE
Phenylhydrazone derivatives of Meldrum's acid: crystal and molecular structures of 2,2–dimethyl–1,3–dioxane–4,5,6–trione–5–(2–nitrophenylhydrazone) and 2,2–dimethyl–1,3–dioxane–4,5,6–trione–5–(2–chlorophenylhydrazone), 1454–8
METHYLENEBICYCLONONANE
Carbon–13 nuclear magnetic resonance spectra of 3,7–disubstituted bicyclo[3.3.1]nonanes: conformation and through–space interaction, 90–3
METHYLENECYCLOALKANE
Reactions of the methyl(t-butyl) radical with unsaturated cycloalkanes: abstraction, addition, and rearrangement, 703–7
METHYLFLUORENE
Radical–anion intermediates. Part 8. The influence of a crown ether on the fluorene and 9–methylfluorene radical–anions, 1295–7
METHYLFORMAMIDE
Alteration of the cis:trans isomer ratio in N–methylformamide using lanthanide shift reagents. Determination of the equilibrium constants for complexation, 1481–5
METHYLFORMAMIDE
Alteration of the cis:trans isomer ratio in N–methylformamide using lanthanide shift reagents. Determination of the equilibrium constants for complexation, 1481–5
METHYLFURYLETHYLIDENEISOPROPYLIDENESUCCINIC
Photochromic heterocyclic fulgides. Part 3. The use of (E)–α–(2,5–dimethyl–3–furylethylidene)(isopropylidene)succinic anhydride as a simple convenient chemical actinometer, 341–3
METHYLHALONIUM
Gas–phase methylation of phenol and anisole by dimethylhalonium ions, 1430–6
METHYLHEXENYLCYCLOHEXENE
Intramolecular [2+2] photoaddition of a 1,7–diene, 1473–80
METHYLIMIDAZOLINETHIONE
Reaction of N,N'–dimethylimidazolidine–2–thione with methyl iodide. Kinetic and thermodynamic aspects, 414–18
METHYLNAPHTHALENE
Naphthalene tetrachlorides and related compounds. Part 9. Structures and reactions of some 2–methylnaphthalene tetrachlorides, 42–8
Naphthalene tetrachlorides and related compounds. Part 10. The carbon–13 nuclear magnetic resonance spectra of some naphthalene tetrachlorides, 1015–20
METHYLNAPHTHALENONE
Dienone–phenol rearrangements of bicyclic cyclohexa–2,5–dien–1–ones; kinetic studies of the importance of a multistage mechanism 935–9
METHYLNAPHTHOPYRAN
Determination of ring inversion barriers for 1H,3H–naphtho[1,8–cd]pyran and its methyl substituted derivatives by molecular mechanics calculations and dynamic nuclear magnetic resonance spectroscopy, 741–6
METHYLNITRONE
Configurations and conformations of the oximes, O–methyl oximes, and N–methylnitrones derived from chalcones, 860–5
METHYLNITROSOBENZENE
Aromatic C–nitroso compounds. Thermodynamics and kinetics of the equilibrium between 2,6–dimethylnitrosobenzene and its trans–dimer, 256–9
METHYLOROTATE
Complexation between 3–methylorotic (3–methyluracil–6–carboxylic) acid dianion and divalent metal cations. The slow acid dissociation of transition metal complexes and its possible relevance to orotic acid phosphoribosylation, 1057–61
METHYLOXETANE
Chemical ionization mass spectra of selected C_4H_8O compounds, 1544–53
METHYLPHENOL
Electrophilic substitution with rearrangement. Part 9. Dienones derived from brominations of o–, m–, and p–cresol, 32–41
METHYLPHENOTHIAZINE
Free radical studies by resonance Raman spectroscopy: phenothiazine, 10–methylphenothiazine, and phenoxazine radical cations, 852–9
METHYLPIPERIDINE
Reactions of nitroanisoles. Part 2. Reactions of 2,4– and 2,6–dinitroanisole with piperidines in benzene, 995–9
METHYLPIPERIDINOL
Optical rotatory dispersion and absolute configuration. Part 32. Circular dichroism and conformation of 3–hydroxypiperidines, 697–8
METHYLPROPANALPHENYLHYDRAZONE
Verdazyls. Part 30. N–1,N–1'–linked biverdazyls (bis–1,2,3,4–tetrahydro–s–tetrazin–1–yls) with a [2.2]–paracyclophanylene bridge, 896–900
METHYLPYRANONE
Nuclear magnetic resonance study of the protonation of 2,6–dimethyl–γ–pyrone and related bases in superacid systems, 812–16
METHYLPYRIDONE
Nuclear magnetic resonance study of the protonation of 2,6–dimethyl–γ–pyrone and related bases in superacid systems, 812–16
METHYLPYRIMIDINE
Proton and carbon–13 nuclear magnetic resonance studies of substituted pyrimidines. Part 6. Carbon–13–proton coupling constants for some monoprotonated methyl– and aminopyrimidines, 783–8
METHYLPYRROMETHENONE
Crystal and molecular structure of a photoisomer of an oxodipyrromethene: the E–isomer of 3,4–dimethyl–2,2'–pyrromethen–5(1H)–one, 1525–8
METHYLSILYL
Unimolecular solvolysis of some organosilicon perchlorates and iodides, 1309–15
METHYLSILYLDIPHENYLPHOSPHINE
Synthesis, stereochemistry, and molecular and crystal structure of exo–3–phenyl–3–phosphabicyclo[3.2.1]oct–6–ene 3–oxide, 1000–4
METHYLSYDNONE
MNDO study of the site of protonation in methylsydnone, 1462–6
METHYLTHIAN
The circular dichroism of (–)–(S)–3–methylthian: a study of the electronic transitions and stereochemistry of cyclic sulfur derivatives, 1529–33
METHYLTHIOCARBONYLIMIDAZOLINE
Tautomerism in a thioamide–nitroxide: solvent effects in terms of an electron spin resonance parameter for a 2–thiocarbonylimidazolidine 1–oxyl, 1089–92
METHYLTHIOPYRANONE
Nuclear magnetic resonance study of the protonation of 2,6–dimethyl–γ–pyrone and related bases in superacid systems, 812–16
METHYLTHIYL
Reactions of the methylthiyl radical with unsaturated cycloalkanes: abstraction, addition, and rearrangement, 703–7
METHYLTROPYLIUM
The one–electron reduction of carbonium ions. Part 14. Effect of successive introduction of methyl substituents on the reducibility of tropylium ion in chromium(II) ion and cathodic reductions, 670–4
METIAZINATE
Free radical reactions of the phenothiazine, metiazinic acid, 890–5
MICELLE
Function micellar catalysis. Part 4. Catalysis of activated ester hydrolysis by surfactant systems as chymotrypsin models, 260–5
Selective functionalization. Part 4. Proton nuclear magnetic resonance studies of the orientation of aromatic molecules by surfactant micelles, 1616–20
MO
Orientation in photochemical substitution of phenyl and methyl radicals in toluene: MO calculation, 110–12

MO(contd)
Conformation and photoelectron spectra of 2-(2-furyl)pyrrole and 2-(2-thienyl)pyrrole, 127–31
Conformational behavior of organic carbonyl compounds. Part 2. Aldehydes and acetyl derivatives of condensed aromatic hydrocarbons, 228–32
The crystal and molecular structure of 1,2,3,5-tetramethylbenzo[b]-thiophenium tetrafluoroborate and some theoretical calculations on the hypothetical 1H-thiophenium cation, 266–9
Electronic spectra and electronic structures of ketenimines and carbodiimides, 270–80
Electron spin resonance and molecular orbital study of radicals in irradiated fluoro-derivatives, 425–31
A theoretical investigation of the energy and structure of ion–molecule pairs in polar solvents. Part 2. Methanediazonium cation in water, 488–93
An electron spin resonance study of pentenynyl and pentadiynyl radicals, 553–60
The role of solvent in the mechanism of protonation of benzene and ethylene, 708–12
The electron spin resonance spectrum of the fulvalene radical anion 747–50
A theoretical investigation of the π-polarization mechanism. The importance of localized and extended polarization, 760–4
Acetyl exchange between acetyl chloride and sterically hindered aryl ketones under Friedel–Crafts conditions, 830–7
Configurations and conformations of the oximes, O-methyl oximes, and N-methylnitrones derived from chalcones, 860–5
Photoelectron spectroscopic studies of some 2-azabicyclo[2.2.2]octan-5-one and bicyclo[2.2.2]octanone derivatives, 991–4
The stability of the carbenes from 1,2-dithiole and 1,3-dithiole in relation to the synthesis of 1,1',3,3'- and 1,1',2,2'-tetrathiafulvalenes, 1062–5
An electron spin resonance investigation of the radical anions of the benzoylpyridines, 1148–52
The electronic structure of the s-indacenyl dianion. Structural assessment by nuclear magnetic resonance spectroscopy and molecular orbital calculations, 1260–3
Model calculations of isotope effects. Part 5. Secondary hydrogen isotope effects in the solvolysis of isopropyl halides, 1316–24
Conformation and stereodynamics of 2-dialkylamino-1,3-dimethyl-2,3-dihydro-1H-1,3,2-benzodiazaphospholes. An experimental nuclear magnetic resonance, ultraviolet photoelectron, and theoretical MNDO investigation, 1411–16
MNDO study of the site of protonation in methylsydnone, 1462–6
The circular dichroism of (−)-(S)-3-methylthian: a study of the electronic transitions and stereochemistry of cyclic sulfur derivatives, 1529–33
Relationship of the oxygen-17 chemical shift to the stretching frequency of the hydroxy group in saturated alcohols, 1558–61
MODIFICATION
A hyperbolic modification of linear free energy relationships, 1084–8
MOL
Crystal and molecular structures of butan-2-one p-nitrophenylhydrazone, propanal 2,4-dinitrophenylhydrazone, dimethyl 2-oxopropanedioate phenylhydrazone, and dimethyl 2-oxopropanedioate 2,4-dinitrophenylhydrazone: hydrogen bonding and bond order in phenylhydrazones, 155–60
The characterization of 1,1-diphenylstannacyclopentane and 1,1,6,6-tetraphenyl-1,6-distannacyclodecane. An x-ray diffraction study of the distannacyclodecane, 369–75
The thermal elimination of iodine from some substituted α-iodonaphthalenes: a structural study, 610–27
Determination of ring inversion barriers for 1H,3H-naphtho[1,8-cd]pyran and its methyl substituted derivatives by molecular mechanics calculations and dynamic nuclear magnetic resonance spectroscopy, 741–6
The structures of the products of three condensation reactions: crystal and molecular structures of 5,6-dihydrothiazolo[2,3-c][1,2,4]thiadiazol-3-one, 6β-(1-ethyl-1-hydroxypropyl)-5α-phenyl-2,3,5,6-tetrahydroimidazo[2,1-b]thiazole, and 5,5-diphenyl-2,3-dihydroimidazo[2,1-b]thiazol-6(5H)-one, 789–93
The crystal and molecular structure of (S)-(+)- and racemic 9,10-dihydrodibenzo[c,g]phenanthrene, 870–6
X-ray crystallographic determination of the molecular structures of cis- and trans-isomers of (±)-5-fluorocyclophosphamide (2-[bis-(2-chloroethyl)amino]-5-fluorotetrahydro-2H-1,3,2-oxazaphosphorine 2-oxide), 980–4
Synthesis, stereochemistry, and molecular and crystal structure of exo-3-phenyl-3-phosphabicyclo[3.2.1]oct-6-ene 3-oxide, 1000–4
Restricted rotation in methyl- and cyanomethyl-tris-(2,4,6-trimethylphenyl)phosphonium compounds. A proton nuclear magnetic resonance spectroscopic study. The crystal structure of cyanomethyltris-(2,4,6-trimethylphenyl)phosphonium tetraiodomercurate(II), 1099–104
An electron spin resonance investigation of the radical anions of the benzoylpyridines, 1148–52
Phenylhydrazone derivatives of Meldrum's acid: crystal and molecular structures of 2,2-dimethyl-1,3-dioxane-4,5,6-trione-5-(2-nitrophenylhydrazone) and 2,2-dimethyl-1,3-dioxane-4,5,6-trione-5-(2-chlorophenylhydrazone), 1454–8
Structural studies of some serrulatane diterpenes, 1467–72
Intramolecular [2+2] photoaddition of a 1,7-diene, 1473–80
Crystal and molecular structure of a photoisomer of an oxodipyrromethene: the E-isomer of 3,4-dimethyl-2,2'-pyrromethen-5(1H)-one, 1525–8
Crystal and molecular structure of an eight-membered cyclic imidosulfite, 2-(2,4,6-trichlorophenylimino)perhydro-1,3,2,6-dioxathiazocine, 1554–7
The heterogeneous thermal transformation of the yellow to the orange crystalline form of diethyl 2,5-diaminoterephthalate. X-ray crystal structures of the two forms, 1577–82
The heterogeneous thermal transformation of the orange diethyl N,N'-diphenyl-2,5-diaminoterephthalate-benzene complex to the red solvent-free compound. X-ray crystal structures of the two forms, 1583–90
The crystal structure, absolute configuration, and circular dichroism of (R)-(−)$_{546}$-8,8'-(2-thiatrimethylene)-1,1'-binaphthyl, 1621–8
MONOHYDRATE
Enthalpies of solution of 2,2'-bipyridyl, 1,10-phenanthroline, and 1,10-phenanthroline monohydrate, 366–8
Stereochemistry of a novel sesquiterpene lactone. X-ray determination of the structure of ursiniolide A monohydrate, 660–3
MONOSACCHARIDE
A nondestructive reactivity index of carbohydrates. The hydroxy protonation rates in dimethyl sulfoxide, 1329–35
MORPHOLINE
Catalysis of N-nitrosation and diazotization by thiourea and thiocyanate ion, 361–5
MORPHOLINONAPHTHALENE
Kinetic and equilibrium acid–base properties of strong naphthalenediamine bases, 1562–5
1,8-Dimorpholinonaphthalene: proton transfer reactions, 1566–71
MULTIHETERO
The crystal structures of a macrocycle containing 2,6-pyridino and piperazino subunits and of the tetrachlorocobaltate(II) salt of its diprotonated cation, 331–5
NAPHTHALENE
Naphthalene tetrachlorides and related compounds. Part 9. Structures and reactions of some 2-methylnaphthalene tetrachlorides, 42–8
1,8-Diacetylnaphthalene and its cyclization to 3-methyl-1H-phenalen-1-one, 58–61
The Friedel–Crafts acetylatin of naphthalene. Evidence for concurrent second- and third-order reactions, 376–8
The thermal elimination of iodine from some substituted α-iodonaphthalenes: a structural study, 610–27
Mechanisms for aromatic photocyanation: naphthalene and biphenyl, 713–19
Naphthalene tetrachlorides and related compounds. Part 10. The carbon-13 nuclear magnetic resonance spectra of some naphthalene tetrachlorides, 1015–20
Conformational equilibrium in 1,2-diarylethylenes manifested in their emission in solution. Part 5. 2,6-Distyrylnaphthalene and related compounds, 1264–6
1,8-Dimorpholinonaphthalene: proton transfer reactions, 1566–71
NAPHTHALENECARBOXALDEHYDE
Conformational behavior of organic carbonyl compounds. Part 2. Aldehydes and acetyl derivatives of condensed aromatic hydrocarbons, 228–32
NAPHTHALENEDIAMINE
Kinetic and equilibrium acid–base properties of strong naphthalenediamine bases, 1562–5
NAPHTHALENONE
Dienone–phenol rearrangements of bicyclic cyclohexa-2,5-dien-1-

NAPHTHALENONE(contd)
ones; kinetic studies of the importance of a multistage mechanism 935–9
NAPHTHALENOOXADIAZECINE
Kinetic and equilibrium acid–base properties of strong naphthalenediamine bases, 1562–5
NAPHTHOPYRAN
Determination of ring inversion barriers for 1H,3H-naphtho[1,8-cd]pyran and its methyl substituted derivatives by molecular mechanics calculations and dynamic nuclear magnetic resonance spectroscopy, 741–6
NAPHTHYLALKYLBICYCLOOCTANE
The synthesis of 1,4-disubstituted bicyclo[2.2.2]octanes exhibiting wide-range, enantiotropic nematic phases, 26–31
NAPHTHYLBUTANOL
Electrophilic substitution in naphthalenes: cyclization of naphthylbutanols of tetrahydrophenanthrene, 286–97
NEIGHBORING
Cope interconversions of the 9-methoxy-endo-tricyclo[4.2.1.$0^{2,5}$]non-a-3,7-dienyl cation and its [4.3.0.$0^{2,5}$] tautomer. Evidence of enhanced ionic stability by delocalization of neighboring σ bonds 457–63
NITRATE
Complex formation between guanidinium nitrate and 1,4,7,10,13,16-hexaoxacyclooctadecane (18-crown-6). Crystal structure of the hydrogen-bonded 2:1 complex, 1025–30
Electroorganic reactions. Part 17. The competition between cleavage and ylide formation in the cathodic reduction of benzyl-, allyl-, cinnamyl-, and polyenylphosphonium salts, 1520–3
NITRATION
Nitration in aqueous nitric acid: the rate profile and the limiting reaction rates, 94–9
Ipso attack in the nitration of aromatic amines. Part 1. The reactions of N,N-dimethyl-p-toluidine and some related compounds, 518–25
Electrophilic aromatic substitution. Part 25. The nitration in aqueous sulfuric acid of some cinnamic acids and other styrene derivatives, 842–7
Electrophilic aromatic substitution. Part 26. The kinetics and mechanism of nitration of some reactive benzene derivatives in aqueous phosphoric acid. The identification of steps rate-limited by nitronium ion formation and by diffusion, 848–51
Electrophilic aromatic substitution. Part 27. Chemical selectivities disguised by mass diffusion. Part 6. The kinetics of nitration in aqueous sulfuric acid of durene, nitrodurene, and nitroprehnitene. A comparison of the rates of nitration of methylnitrobenzenes in aqueous sulfuric acid with the corresponding rates from mixing-disguised nitrations with nitronium hexafluorophosphate in nitromethane based on a theoretical mixing-reaction model, 1358–66
NITRIC
Nitration in aqueous nitric acid: the rate profile and the limiting reaction rates, 94–9
NITRITE
The relative efficiencies of a number of nitrite traps at different acidities and bromide ion concentrations, 699–702
Alkyl nitrites as nitrosating agents. Kinetics and mechanism of the reactions of propyl nitrite in propan-1-ol, 1021–4
NITRO
The effect of salt formation on the molecular structure and charge distribution in imines: the crystal and molecular structures and the ultraviolet, infrared, and the proton and carbon-13 nuclear magnetic resonance spectra of 2,6-dimethyl-4-(p-nitrophenylimino)pyran and its hydrobromide and methobromide salts, 303–9
Linear free energy relationships in the thiophene series. Part 2. The kinetics of the reactions of some 2-bromo-3-nitro-5-X-thiophenes with substituted anilines in methanol, 388–92
The stabilities of Meisenheimer complexes. Part 25. Kinetic studies of the reaction of 1,3,5-trinitrobenzene with aliphatic amines in dimethyl sulfoxide, 533–9
Catalysis in aromatic nucleophilic substitution. Part 5. Reactions of piperidine with methyl 2-methoxy-3-nitrothiophene-5-carboxylate and 5-acetyl-2-methoxy-3-nitrothiophene, 642–4
Electrophilic aromatic substitution. Part 25. The nitration in aqueous sulfuric acid of some cinnamic acids and other styrene derivatives, 842–7
Unsymmetrically substituted furoxans. Part 6. 3-Nitro-4-phenylfuroxan: reaction with sodium methoxide and x-ray structural analysis, 1240–2
NITROANILINIUM
Association of crown ethers with anilinium ions in methanol solution and its influence on acid–base equilibriums, 1252–5
NITROANISOLE
Reactions of nitroanisoles. Part 2. Reactions of 2,4- and 2,6-dinitroanisole with piperidines in benzene, 995–9
NITROBENZENE
The stabilities of Meisenheimer complexes. Part 24. Some reactions of 2,4,6-trinitrotoluene and 2,4,6-trinitrobenzyl chloride with bases, 526–32
The stabilities of Meisenheimer complexes. Part 25. Kinetic studies of the reaction of 1,3,5-trinitrobenzene with aliphatic amines in dimethyl sulfoxide, 533–9
The stabilities of Meisenheimer complexes. Part 26. The reactions of some aromatic nitro compounds with base in tert-butyl alcohol–water mixtures, 807–11
Kinetics of the reactions of aniline and 2,2,2-trifluoroethylamine with 1,3,5-trinitrobenzene in dimethyl sulfoxide and acetonitrile, and of 2,2,2-trifluoroethylamine with 1-fluoro- and 1-chloro-2,4-dinitrobenzenes in these solvents, 1201–5
NITROBENZENEDIAZONIUM
Kinetics and intermediates in the several forward and reverse reactions of nitro-substituted arenediazonium ions with hydroxide ion, 1221–9
NITROBENZOYLACETONE
Syn–anti-photoisomerization of chelated arylhydrazones of 1,2,3-triketones: a correction, 219
NITROBENZYL
The stabilities of Meisenheimer complexes. Part 24. Some reactions of 2,4,6-trinitrotoluene and 2,4,6-trinitrobenzyl chloride with bases, 526–32
NITROCINNAMATE
Electrophilic aromatic substitution. Part 25. The nitration in aqueous sulfuric acid of some cinnamic acids and other styrene derivatives, 842–7
NITRODURENE
Electrophilic aromatic substitution. Part 27. Chemical selectivities disguised by mass diffusion. Part 6. The kinetics of nitration in aqueous sulfuric acid of durene, nitrodurene, and nitroprehnitene. A comparison of the rates of nitration of methylnitrobenzenes in aqueous sulfuric acid with the corresponding rates from mixing-disguised nitrations with nitronium hexafluorophosphate in nitromethane based on a theoretical mixing-reaction model, 1358–66
NITROFLUORENYLIDENEAMINOOXYPROPIONATE
Diastereoisomeric charge-transfer complexes. Measurement of thermodynamic constants by proton nuclear magnetic resonance spectroscopy, 350–2
NITROGEN
Linear solvation energy relationship. Part 11. An analysis of nitrogen-15 solvent shifts in amides, 353–5
An electron spin resonance study on the interactions between bis(pentane-2,4-dionato)copper(II) and some heterocycles. Part 2. The 1:1 adducts with aza-aromatic compounds and azacyclohexanes, 652–5
Perfluoro effects in nitrogen-15 nuclear magnetic resonance spectroscopy. Part 1. Aryl and N-heteroaryl azides, 975–9
Conformation and stereodynamics of 2-dialkylamino-1,3-dimethyl-2,3-dihydro-1H-1,3,2-benzodiazaphospholes. An experimental nuclear magnetic resonance, ultraviolet photoelectron, and theoretical MNDO investigation, 1411–16
NITROMETHYLBENZENE
Electrophilic aromatic substitution. Part 27. Chemical selectivities disguised by mass diffusion. Part 6. The kinetics of nitration in aqueous sulfuric acid of durene, nitrodurene, and nitroprehnitene. A comparison of the rates of nitration of methylnitrobenzenes in aqueous sulfuric acid with the corresponding rates from mixing-disguised nitrations with nitronium hexafluorophosphate in nitromethane based on a theoretical mixing-reaction model, 1358–66
NITRONE
Electron spin resonance studies of spin trapping. On the role of hydroxylamines and an oxaziridine in the formation of nitroxides following addition of hydroxyalkyl radicals to N-tert-butyl-α-phenylnitrone, 379–81
NITRONIUM
Electrophilic ipso-substitutions. Part 1. Reaction of 3-substituted indoles with nitronium and nitrosonium ions, 628–32

NITROPHENYL
The effect of changing the substituent in the sulfonyl group in base catalyzed hydrolysis of 2,4-dinitrophenyl arylmethanesulfonate esters in aqueous solution, 72–7
The effect of structure change in bases on their reaction with 2,4-dinitrophenyl arylmethanesulfonate esters in water, 78–81
Function micellar catalysis. Part 4. Catalysis of activated ester hydrolysis by surfactant systems as chymotrypsin models, 260–5
The effect of salt formation on the molecular structure and charge distribution in imines: the crystal and molecular structures and the ultraviolet, infrared, and the proton and carbon-13 nuclear magnetic resonance spectra of 2,6-dimethyl-4-(p-nitrophenylimino)pyran and its hydrobromide and methobromide salts, 303–9
Nucleophilicity of phenolates in the reaction with p-nitrophenyl acetate in ethanol, 327–30
Kinetics of the reactions of phenyl 2,4,6-trinitrophenyl ether with piperidine, n-butylamine, aniline, benzylamine, and morpholine in benzene, 1105–7
NITROPHENYLAZOSALICYLATE
Kinetic and equilibrium solvent isotope effects on the deprotonation of a salicylate ion by hydroxide ion and general bases, 1304–8
NITROPHENYLFUROXAN
Unsymmetrically substituted furoxans. Part 6. 3-Nitro-4-phenylfuroxan: reaction with sodium methoxide and x-ray structural analysis, 1240–2
NITROPHENYLHYDRAZONE
Crystal and molecular structures of butan-2-one p-nitrophenylhydrazone, propanal 2,4-dinitrophenylhydrazone, dimethyl 2-oxopropanedioate phenylhydrazone, and dimethyl 2-oxopropanedioate 2,4-dinitrophenylhydrazone: hydrogen bonding and bond order in phenylhydrazones, 155–60
NITROPHENYLIMINOPYRAN
The effect of salt formation on the molecular structure and charge distribution in imines: the crystal and molecular structures and the ultraviolet, infrared, and the proton and carbon-13 nuclear magnetic resonance spectra of 2,6-dimethyl-4-(p-nitrophenylimino)pyran and its hydrobromide and methobromide salts, 303–9
NITROPREHNITENE
Electrophilic aromatic substitution. Part 27. Chemical selectivities disguised by mass diffusion. Part 6. The kinetics of nitration in aqueous sulfuric acid of durene, nitrodurene, and nitroprehnitene. A comparison of the rates of nitration of methylnitrobenzenes in aqueous sulfuric acid with the corresponding rates from mixing-disguised nitrations with nitronium hexafluorophosphate in nitromethane based on a theoretical mixing-reaction model, 1358–66
NITROSATION
Reactions of N-heteroaromatic bases with nitrous acid. Part 6. Kinetics of the nitrosation of 2- and 4-methylaminopyridine and their 1-oxide derivatives, 239–47
Reactions of N-heteroaromatic bases with nitrous acid. Part 7. Kinetics of the nitrosation of secondary and of the diazotization of primary β-aminopyridines, 248–55
Catalysis of N-nitrosation and diazotization by thiourea and thiocyanate ion, 361–5
Alkyl nitrites as nitrosating agents. Kinetics and mechanism of the reactions of propyl nitrite in propan-1-ol, 1021–4
NITROSO
Aroyl peroxides. Part 7. The effects of additives on the thermolysis of aroyl peroxides in arenes and the elimination of possible complications in the measurement of partial rate factors for phenylation, 1109–20
NITROSOBENZENE
Aromatic C-nitroso compounds. Thermodynamics and kinetics of the equilibrium between 2,6-dimethylnitrosobenzene and its trans-dimer, 256–9
Aroyl peroxides. Part 7. The effects of additives on the thermolysis of aroyl peroxides in arenes and the elimination of possible complications in the measurement of partial rate factors for phenylation, 1109–20
NITROSONIUM
Electrophilic ipso-substitutions. Part 1. Reaction of 3-substituted indoles with nitronium and nitrosonium ions, 628–32
NITROTHIENYL
Linear free energy relationships in the thiophene series. Part 2. The kinetics of the reactions of some 2-bromo-3-nitro-5-X-thiophenes with substituted anilines in methanol, 388–92
NITROTHIENYLANILINE
Linear free energy relationships in the thiophene series. Part 2. The kinetics of the reactions of some 2-bromo-3-nitro-5-X-thiophenes with substituted anilines in methanol, 388–92
NITROTHIOBENZOATE
The kinetics and mechanism of the hydrolysis of thiol esters in aqueous solution promoted by tetrachlorogold(III) ions, 1406–10
NITROTOLUENE
The stabilities of Meisenheimer complexes. Part 24. Some reactions of 2,4,6-trinitrotoluene and 2,4,6-trinitrobenzyl chloride with bases, 526–32
NITROXIDE
Electron spin resonance studies of spin trapping. On the role of hydroxylamines and an oxaziridine in the formation of nitroxides following addition of hydroxyalkyl radicals to N-tert-butyl-α-phenylnitrone, 379–81
NMR
Electrophilic substitution with rearrangement. Part 9. Dienones derived from brominations of o-, m-, and p-cresol, 32–41
Naphthalene tetrachlorides and related compounds. Part 9. Structures and reactions of some 2-methylnaphthalene tetrachlorides, 42–8
Protonation of alkyl aryl sulfides in antimony pentafluoride-fluorosulfonic acid solution, 62–4
Intramolecular hydrogen bonding and molecular conformations of nucleosides: uridine derivatives, 82–9
Carbon-13 nuclear magnetic resonance spectra of 3,7-disubstituted bicyclo[3.3.1]nonanes: conformation and through-space interaction, 90–3
Barriers to intramolecular hydride transfers in some polycyclic hydroxyketones, 175–84
Radiation mechanisms. Part 21. Electron spin resonance studies of the effect of ionizing radiation on halobenzenes: the formation of σ^* anions and ipso addition radicals, 185–92
Assignment of the carbon-13 spectrum of vancomycin and its derivatives, 201–6
Conformational behavior of organic carbonyl compounds. Part 2. Aldehydes and acetyl derivatives of condensed aromatic hydrocarbons, 228–32
The crystal and molecular structure of 1,2,3,5-tetramethylbenzo[b]-thiophenium tetrafluoroborate and some theoretical calculations on the hypothetical 1H-thiophenium cation, 266–9
The effect of salt formation on the molecular structure and charge distribution in imines: the crystal and molecular structures and the ultraviolet, infrared, and the proton and carbon-13 nuclear magnetic resonance spectra of 2,6-dimethyl-4-(p-nitrophenylimino)pyran and its hydrobromide and methobromide salts, 303–9
Diastereoisomeric charge-transfer complexes. Measurement of thermodynamic constants by proton nuclear magnetic resonance spectroscopy, 350–2
Linear solvation energy relationship. Part 11. An analysis of nitrogen-15 solvent shifts in amides, 353–5
The carbon-13 nuclear magnetic resonance substituent chemical shifts of 2-substituted indenes. Interpretation by a multivariate data analysis method, 403–8
Cope interconversions of the 9-methoxy-endo-tricyclo[4.2.1.$0^{2,5}$]-nona-3,7-dienyl cation and its [4.3.0.$0^{2,5}$] tautomer. Evidence of enhanced ionic stability by delocalization of neighboring σ bonds 457–63
Conformational analysis of 2- and 3-phosphoglyceric acids by proton and carbon-13 nuclear magnetic resonance spectroscopy, 494–9
The conformation of 4-acetylpyridine determined from proton and deuterium nuclear magnetic resonance spectra of a nematic phase 540–4
Vibrational spectroscopy and conformations of 2-alkoxycarbonyl-3-aminoacrylic esters, 561–70
Conformational studies by dynamic nuclear magnetic resonance. Part 20. Internal motion in hydrazones and related derivatives, 604–9
The determination, by proton nuclear magnetic resonance studies, of some stereochemical features in the alkaloids isocorymine, erinine, ernicine, and eripine, 725–9
Conformational analysis of tryptophan in solution using nuclear magnetic resonance methods, 730–5
Determination of ring inversion barriers for 1H,3H-naphtho[1,8-cd]pyran and its methyl substituted derivatives by molecular mechanics calculations and dynamic nuclear magnetic resonance spectroscopy, 741–6
Carbon-13 substituent chemical shifts in the side-chain carbons of aromatic systems: the importance of π-polarization in

NMR(contd)
determining chemical shifts, 753–9
Proton and carbon–13 nuclear magnetic resonance studies of substituted pyrimidines. Part 6. Carbon–13–proton coupling constants for some monoprotonated methyl– and aminopyrimidines, 783–8
Nuclear magnetic resonance study of the protonation of 2,6–dimethyl–γ–pyrone and related bases in superacid systems, 812–16
Configurations and conformations of the oximes, O–methyl oximes, and N–methylnitrones derived from chalcones, 860–5
Verdazyls. Part 30. N–1,N–1'–linked biverdazyls (bis–1,2,3,4–tetrahydro–s–tetrazin–1–yls) with a [2.2]–paracyclophanylene bridge, 896–900
Nuclear magnetic resonance investigations of iminium ion intermediates. Part 9. Multinuclear study of the reaction between Lewis acids and vinylogous amides, 912–17
Perfluoro effects in nitrogen–15 nuclear magnetic resonance spectroscopy. Part 1. Aryl and N–heteroaryl azides, 975–9
Preparation and spectroscopic properties of pure tetrabenzoporphyrins, 1005–9
Naphthalene tetrachlorides and related compounds. Part 10. The carbon–13 nuclear magnetic resonance spectra of some naphthalene tetrachlorides, 1015–20
High–resolution carbon–13 nuclear magnetic resonance spectra of some solid trans–azobenzene and dyestuff species, 1031–5
Restricted rotation in methyl– and cyanomethyl–tris–(2,4,6–trimethylphenyl)phosphonium compounds. A proton nuclear magnetic resonance spectroscopic study. The crystal structure of cyanomethyltris–(2,4,6–trimethylphenyl)phosphonium tetraiodomercurate(II), 1099–104
Carbon–13 and proton nuclear magnetic resonance study of solvent effects on tautomerism in 1–aryl–3–methyltriazenes, 1161–5M.
The electronic structure of the s–indacenyl dianion. Structural assessment by nuclear magnetic resonance spectroscopy and molecular orbital calculations, 1260–3
An analysis of the proton and carbon–13 nuclear magnetic resonance spectra of 3–tert–butylaminoacrolein and of glyoxal–tert–butylhydrazone, 1283–6
The effect of charge and of electron density on the nuclear magnetic resonance parameters of conjugated systems: some isoelectronic anions and cations, 1287–91
Nuclear magnetic resonance studies of the conformation of bilirubin and its derivatives in solution, 1374–83
Conformation and stereodynamics of 2–dialkylamino–1,3–dimethyl–2,3–dihydro–1H–1,3,2–benzodiazaphospholes. An experimental nuclear magnetic resonance, ultraviolet photoelectron, and theoretical MNDO investigation, 1411–16
Conformational studies by dynamic nuclear magnetic resonance spectroscopy. Part 21. Structure, conformation, and stereodynamics of sulfinylhydrazines, 1449–53
Phenylhydrazone derivatives of Meldrum's acid: crystal and molecular structures of 2,2–dimethyl–1,3–dioxane–4,5,6–trione–5–(2–nitrophenylhydrazone) and 2,2–dimethyl–1,3–dioxane–4,5,6–trione–5–(2–chlorophenylhydrazone), 1454–8
Alteration of the cis:trans isomer ratio in N–methylformamide using lanthanide shift reagents. Determination of the equilibrium constants for complexation, 1481–5
The effect of salt formation on structure and charge distribution in imines. Part 4. Energy barriers to isomerization about the carbon–nitrogen bond in 2,6–dimethyl–4–aryliminopyrans and their salts: solvent and substituent effects, and evidence for isomerization mechanisms, 1501–7
Organic peroxides. Part 12. The preparation and properties of some triazinyl peroxides, 1512–19
Relationship of the oxygen–17 chemical shift to the stretching frequency of the hydroxy group in saturated alcohols, 1558–61
Selective functionalization. Part 4. Proton nuclear magnetic resonance studies of the orientation of aromatic molecules by surfactant micelles, 1616–20
NONAOXAORTHOCYCLOPHANE
The crystal structures of 1,5,12,16,23,26,29,32,35–nonaoxa[13.3.14]–[5.5]orthocyclophane and its complex with rubidium picrate, 1606–15
NUCLEOPHILE
The influence of remote substituents on amide bond formation. The reaction of oxazolinones with benzylamine, 140–2
Reactions of 1,1–dialkoxyalkene radical cations in aqueous solution with OH^-, HPO_4^{2-}, and H_2O. Electron spin resonance spectroscopic, pulse conductometric, and product analytical studies, 143–54
Nucleophilic substitution at sulfonyl sulfur. Part 1. Reactivity of thiophene–2–sulfonyl halides in water and methanol–acetonitrile 221–7
Nucleophilicity of phenolates in the reaction with p–nitrophenyl acetate in ethanol, 327–30
NUCLEOPHILIC
The effect of changing the substituent in the sulfonyl group in base catalyzed hydrolysis of 2,4–dinitrophenyl arylmethanesulfonate esters in aqueous solution, 72–7
NUCLEOPHILICITY
α–, β–, and γ–Deuterium isotope effects in the solvolysis of octan–2–yl p–bromobenzenesulfonate in 88% aqueous trifluoroethanol and 83% aqueous hexafluoroisopropyl alcohol, 985–90
NUCLEOSIDE
Intramolecular hydrogen bonding and molecular conformations of nucleosides: uridine derivatives, 82–9
OCTADECYLSULFONAMIDOCOPPER
Molecular interactions in nonaqueous solvents. Part 3. Kinetics and energetics of dimerization of a tetrasubstituted copper(II) phthalocyanine dye, 765–9
OCTAOXAORTHOCYCLOPHANE
The crystal structure of 1,4,7,14,17,20,28,35–octaoxa[$2^{3,29}$.$2^{18,34}$][7.7]orthocyclophane and its multihydrated complex with potassium chloride, 1–11
Crystal structure of two bridged macrobicyclic polyethers, 1,5,12,16,23,26,29–heptaoxa[$7^{3,14}$][5.5]orthocyclophane and 1,5,12,16,23,26,29,32–octaoxa[$10^{3,14}$][5.5]orthocyclophane, 12–18
OCTENE
Oxidation by cobalt(III) acetate. Part 3. Allylic oxidation of various olefins in acetic acid, 817–20
OCTYL
Anion activation by the bulky perhydrotribenzo[2.2.2]cryptand in aqueous–organic two–phase systems and in low polarity media. A comparison with the anionic reactivity induced by [2.2.2,C_{14}]cryptand, 821–4
α–, β–, and γ–Deuterium isotope effects in the solvolysis of octan–2–yl p–bromobenzenesulfonate in 88% aqueous trifluoroethanol and 83% aqueous hexafluoroisopropyl alcohol, 985–90
OLEFIN
Oxidation by cobalt(III) acetate. Part 3. Allylic oxidation of various olefins in acetic acid, 817–20
OLIGOMERIZATION
Bicyclic phosphanes: synthesis, stereochemistry, and conformation, 19–25
OLIGOOXYETHYLENE
Nonsupported and resin–supported oligo(oxyethylenes) as solid–liquid phase–transfer catalysts. Effect of chain length and head–group, 514–17
ORANGE
High–resolution carbon–13 nuclear magnetic resonance spectra of some solid trans–azobenzene and dyestuff species, 1031–5
ORDER
Crystal and molecular structures of butan–2–one p–nitrophenylhydrazone, propanal 2,4–dinitrophenylhydrazone, dimethyl 2–oxopropanedioate phenylhydrazone, and dimethyl 2–oxopropanedioate 2,4–dinitrophenylhydrazone: hydrogen bonding and bond order in phenylhydrazones, 155–60
ORGANOCOBALOXIME
Thermal and photochemical reactions of organocobaloximes with diphenyl disulfide and diphenyl diselenide, 393–8
ORGANOLANTHANIDE
Alteration of the cis:trans isomer ratio in N–methylformamide using lanthanide shift reagents. Determination of the equilibrium constants for complexation, 1481–5
ORGANOMAGNESIUM
Thermochemical bond dissociation energies of carbon–magnesium bonds, 464–7
ORGANOPHOSPHONIUM
Electroorganic reactions. Part 17. The competition between cleavage and ylide formation in the cathodic reduction of benzyl–allyl–, cinnamyl–, and polyenylphosphonium salts, 1520–3
ORGANOSILICON
Unimolecular solvolysis of some organosilicon perchlorates and iodides, 1309–15
ORIENTATION
Selective functionalization. Part 4. Proton nuclear magnetic resonance studies of the orientation of aromatic molecules by surfactant micelles, 1616–20

OROTIC
Complexation between 3-methylorotic (3-methyluracil-6-carboxylic) acid dianion and divalent metal cations. The slow acid dissociation of transition metal complexes and its possible relevance to orotic acid phosphoribosylation, 1057–61
OVERHAUSER
Nuclear magnetic resonance studies of the conformation of bilirubin and its derivatives in solution, 1374–83
OXADIAZOLE
Mononuclear heterocyclic rearrangements. Part 7. Evidence for general base catalysis in the rearrangement of the Z-phenylhydrazone of 3-benzoyl-5-phenyl-1,2,4-oxadiazole into 2,5-diphenyl-4-benzoylamino-1,2,3-triazole in dioxane–water, 1325–8
OXAMIDE
Conformations and barriers to inversion of seven-membered cyclic oxamides and their monothio and dithio analogs: a study by dynamic nuclear magnetic resonance spectroscopy and molecular mechanics, 1344–50
OXATHIOLANE
Gas phase thermolyses. Part 4. Gas phase thermolyses of thietane 1-oxide and 1,2-oxathiolane 2-oxide. Evidence for the intermediacy of 1,2-oxathiolane, 1166–70
OXAZIRIDINE
Electron spin resonance studies of spin trapping. On the role of hydroxylamines and an oxaziridine in the formation of nitroxides following addition of hydroxyalkyl radicals to N-tert-butyl-α-phenylnitrone, 379–81
OXAZOLINONE
The influence of remote substituents on amide bond formation. The reaction of oxazolinones with benzylamine, 140–2
OXETANE
Chemical ionization mass spectra of selected C_4H_8O compounds, 1544–53
OXIDATIVE
Photogalvanic cells. Part 14. The synthesis and characterization of disulfonated thionines, 794–800
Thermal decomposition of diazodiphenylmethane catalyzed by sulfur compounds in the presence of oxygen, 1437–42
OXIDE
Photolysis and thermolysis of 3-n-butyl-3-phenyldiazirine, 53–7
Reactions of N-heteroaromatic bases with nitrous acid. Part 6. Kinetics of the nitrosation of 2- and 4-methylaminopyridine and their 1-oxide derivatives, 239–47
Synthesis, stereochemistry, and molecular and crystal structure of exo-3-phenyl-3-phosphabicyclo[3.2.1]oct-6-ene 3-oxide, 1000–4
Gas phase thermolyses. Part 4. Gas phase thermolyses of thietane 1-oxide and 1,2-oxathiolane 2-oxide. Evidence for the intermediacy of 1,2-oxathiolane, 1166–70
The steric course of the reaction of ethylene oxide with hydrogen halides in the gas phase, 1336–40
OXIDN
Photolysis and thermolysis of 3-n-butyl-3-phenyldiazirine, 53–7
1,8-Diacetylnaphthalene and its cyclization to 3-methyl-1H-phenalen-1-one, 58–61
The effect of electrochemically generated positive bromine species in acetonitrile on the cleavage of carbon–bromine and carbon–chlorine bonds, 336–40
Oxidation of organic sulfides by chlorine and iodosylbenzene diacetate: kinetics and mechanism, 382–7
The electron spin resonance spectrum of the fulvalene radical anion 747–50
Oxidation by cobalt(III) acetate. Part 3. Allylic oxidation of various olefins in acetic acid, 817–20
The anodic oxidation of 1,4-diaminobenzene: an electron spin resonance and electrochemical study, 825–9
Free radical reactions of the phenothiazine, metiazinic acid, 890–5
Electron spin resonance studies. Part 60. Detection of radical-cations from vinyl sulfides: evidence for a cyclic structure, 1066–9
Tautomerism in a thioamide–nitroxide: solvent effects in terms of an electron spin resonance parameter for a 2-thiocarbonylimidazolidine 1-oxyl, 1089–92
Kinetics and mechanism of the oxidation of 3,5-di-tert-butyl-o-benzoquinone with hydrogen peroxide in aqueous methanol solution, 1176–9
Radical reactions of carbohydrates. Part 2. An electron spin resonance study of the oxidation of D-glucose and related compounds with the hydroxyl radical, 1186–99
Linear free energy relationships. Part 10. Synthesis, thermal, spectral, electrochemical, and hole transport (conduction) properties of some novel carbazole derivatives, 1267–73
Electron spin resonance studies. Part 62. Acid-catalyzed interconversion of β-hydroxyalkyl radicals: radical-cation intermediates, 1401–5
Anodic oxidation of carboxamides. Part 3. The mechanism of anodic cyclization of N-methylcarbanilides, 1599–605
OXIME
Configurations and conformations of the oximes, O-methyl oximes, and N-methylnitrones derived from chalcones, 860–5
OXOBENZOXAZOLYLMETHYLALLYLARENESULFENAMIDE
The mechanism for interconversion of stereoisomers in N-(2,3-dihydro-2-oxobenzoxazol-3-yl)- and N-(1,2-dihydro-2-oxoquinolin-1-yl)-N-1-methylallylarenesulfenamides, 509–13
OXOPROPANEDIOATE
Crystal and molecular structures of butan-2-one p-nitrophenylhydrazone, propanal 2,4-dinitrophenylhydrazone, dimethyl 2-oxopropanedioate phenylhydrazone, and dimethyl 2-oxopropanedioate 2,4-dinitrophenylhydrazone: hydrogen bonding and bond order in phenylhydrazones, 155–60
OXOQUINOLINYLMETHYLALLYLARENESULFENAMIDE
The mechanism for interconversion of stereoisomers in N-(2,3-dihydro-2-oxobenzoxazol-3-yl)- and N-(1,2-dihydro-2-oxoquinolin-1-yl)-N-1-methylallylarenesulfenamides, 509–13
OXYGEN
Relationship of the oxygen-17 chemical shift to the stretching frequency of the hydroxy group in saturated alcohols, 1558–61
OXYL
Tautomerism in a thioamide–nitroxide: solvent effects in terms of an electron spin resonance parameter for a 2-thiocarbonylimidazolidine 1-oxyl, 1089–92
OXYPROPENOYL
An electron spin resonance study of 3-oxypropenoyl radicals derived from glycidols, 1132–7
PARAFORMALDEHYDE
Verdazyls. Part 30. N-1,N-1'-linked biverdazyls (bis-1,2,3,4-tetrahydro-s-tetrazin-1-yls) with a [2.2]-paracyclophanylene bridge, 896–900
PENICILLAMINE
A kinetic analysis of the acidic degradation of penicillin G and confirmation of penicillamine as a degradation product, 1247–51
PENICILLIN
A kinetic analysis of the acidic degradation of penicillin G and confirmation of penicillamine as a degradation product, 1247–51
PENTACYCLOUNDECANONE
Barriers to intramolecular hydride transfers in some polycyclic hydroxyketones, 175–84
PENTADIENYL
An electron spin resonance study of pentadienyl and related radicals: homolytic fission of cyclobut-2-enylmethyl radicals, 633–41
PENTADIYNYL
An electron spin resonance study of pentenynyl and pentadiynyl radicals, 553–60
PENTAMETHYL
Photolysis of the carbon–hydrogen bond in pentamethylcyclopentadiene. Properties of the pentamethylcyclopentadienyl radical, 692–6
PENTAMETHYLCYCLOPENTADIENE
Photolysis of the carbon–hydrogen bond in pentamethylcyclopentadiene. Properties of the pentamethylcyclopentadienyl radical, 692–6
PENTAMETHYLCYCLOPENTADIENYL
Photolysis of the carbon–hydrogen bond in pentamethylcyclopentadiene. Properties of the pentamethylcyclopentadienyl radical, 692–6
PENTANEDIONATOCOPPER
An electron spin resonance study on the interactions between bis(pentane-2,4-dionato)copper(II) and some heterocycles. Part 2. The 1:1 adducts with aza-aromatic compounds and azacyclohexanes, 652–5
PENTENYNYL
An electron spin resonance study of pentenynyl and pentadiynyl radicals, 553–60
PEPTIDE
Assignment of the carbon-13 spectrum of vancomycin and its derivatives, 201–6

PEPTIDE(contd)
Ultraviolet spectra of dehydropeptides by double beam measurement, 1171–5
PERCHLORATE
Perchlorate esters. Part 3. Correlation of the rates of reaction of arenesulfonate ions with methyl perchlorate in acetonitrile, 49–52
Reactions of N–heteroaromatic bases with nitrous acid. Part 6. Kinetics of the nitrosation of 2– and 4–methylaminopyridine and their 1–oxide derivatives, 239–47
Unimolecular solvolysis of some organosilicon perchlorates and iodides, 1309–15
Anodic oxidation of carboxamides. Part 3. The mechanism of anodic cyclization of N–methylcarbanilides, 1599–605
PERFLUORO
Electron spin resonance and molecular orbital study of radicals in irradiated fluoro–derivatives, 425–31
PEROXIDE
Aroyl peroxides. Part 7. The effects of additives on the thermolysis of aroyl peroxides in arenes and the elimination of possible complications in the measurement of partial rate factors for phenylation, 1109–20
Electron spin resonance study of inversion and conformations in 1–hydroxycyclohexyl radicals, 1143–7
Kinetics and mechanism of the oxidation of 3,5–di–tert–butyl–o–benzoquinone with hydrogen peroxide in aqueous methanol solution, 1176–9
Unsymmetrically substituted furoxans. Part 6. 3–Nitro–4–phenylfuroxan: reaction with sodium methoxide and x–ray structural analysis, 1240–2
Organic peroxides. Part 12. The preparation and properties of some triazinyl peroxides, 1512–19
PEROXIDN
Organic peroxides. Part 12. The preparation and properties of some triazinyl peroxides, 1512–19
PEROXYDIPHOSPHATE
Induction of instantaneous chain reactions in the peroxodiphosphate–iron(II) system by selected substrates during a titrimetric procedure, 1280–2
PH
Reactions of N–heteroaromatic bases with nitrous acid. Part 7. Kinetics of the nitrosation of secondary and of the diazotization of primary β–aminopyridines, 248–55
PHASE
Nonsupported and resin–supported oligo(oxyethylenes) as solid–liquid phase–transfer catalysts. Effect of chain length and head–group, 514–17
The reaction of CH_4^+, CH_3^+ and other simple carbocations with benzene in the gas phase, 838–41
Gas–phase methylation of phenol and anisole by dimethylhalonium ions, 1430–6
The heterogeneous thermal transformation of the yellow to the orange crystalline form of diethyl 2,5–diaminoterephthalate. X–ray crystal structures of the two forms, 1577–82
The heterogeneous thermal transformation of the orange diethyl N,N'–diphenyl–2,5–diaminoterephthalate–benzene complex to the red solvent–free compound. X–ray crystal structures of the two forms, 1583–90
PHENALENONE
1,8–Diacetylnaphthalene and its cyclization to 3–methyl–1H–phenalen–1–one, 58–61
PHENANTHRENE
Electrophilic substitution in naphthalenes: cyclization of naphthylbutanols of tetrahydrophenanthrene, 286–97
PHENANTHRENECARBOXALDEHYDE
Conformational behavior of organic carbonyl compounds. Part 2. Aldehydes and acetyl derivatives of condensed aromatic hydrocarbons, 228–32
PHENANTHRIDINE
Photocyclization of aryl halides. Part 2. The upper excited state reactivity of 3–(2–haloanilino)–1,3–diphenylprop–2–enones: hydrogen–bonded configurational lock in photosynthesis, 1010–14
PHENANTHROLINE
Enthalpies of solution of 2,2'–bipyridyl, 1,10–phenanthroline, and 1,10–phenanthroline monohydrate, 366–8
PHENAZINE
Benzoquinone imines. Part 17. Kinetics and mechanism of the hydrolysis and cyclization of 2–aminoindophenols in aqueous solution, 886–9
PHENOL
Nitration in aqueous nitric acid: the rate profile and the limiting reaction rates, 94–9
Flash photolysis study of phenyl–substituted phenols, quinones, and corresponding free radicals. Part 3. Intermediates in the photolysis of phenyl–substituted phenols, 1237–9
Gas–phase methylation of phenol and anisole by dimethylhalonium ions, 1430–6
Relationship of the oxygen–17 chemical shift to the stretching frequency of the hydroxy group in saturated alcohols, 1558–61
Kinetics and mechanisms of the Bamberger rearrangement. Part 4. Rearrangement of sterically hindered phenylhydroxylamines to 4–aminophenols in aqueous sulfuric acid solution, 1596–8
Selective functionalization. Part 4. Proton nuclear magnetic resonance studies of the orientation of aromatic molecules by surfactant micelles, 1616–20
PHENOLATE
Nucleophilicity of phenolates in the reaction with p–nitrophenyl acetate in ethanol, 327–30
PHENOTHIAZINE
Free radical studies by resonance Raman spectroscopy: phenothiazine, 10–methylphenothiazine, and phenoxazine radical cations, 852–9
Heterocyclic free radicals. Part 10. Phenothiazine cation radicals as probes of the inductive effect, 1492–500
PHENOXAZINE
Free radical studies by resonance Raman spectroscopy: phenothiazine, 10–methylphenothiazine, and phenoxazine radical cations, 852–9
PHENYL
Photolysis and thermolysis of 3–n–butyl–3–phenyldiazirine, 53–7
Orientation in photochemical substitution of phenyl and methyl radicals in toluene: MO calculation, 110–12
Dipole moment and helium(I) photoelectron spectroscopic studies of the conformation of di–2–pyridyl and diphenyl dichalcogenides R_2X_2 (X = S, Se, or Te), 281–5
Electron spin resonance studies of spin trapping. On the role of hydroxylamines and an oxaziridine in the formation of nitroxides following addition of hydroxyalkyl radicals to N–tert–butyl–α–phenylnitrone, 379–81
Thermal and photochemical reactions of organocobaloximes with diphenyl disulfide and diphenyl diselenide, 393–8
The pyridine–catalyzed reaction of methanol with phenyl isocyanate in tetrachloromethane, 664–9
Synthesis, stereochemistry, and molecular and crystal structure of exo–3–phenyl–3–phosphabicyclo[3.2.1]oct–6–ene 3–oxide, 1000–4
Kinetics of the reactions of phenyl 2,4,6–trinitrophenyl ether with piperidine, n–butylamine, aniline, benzylamine, and morpholine in benzene, 1105–7
Synthesis, stereochemistry, and crystal and molecular structure of 4–bromo–1,2,2,3–tetramethyl–1–phenylphosphetanium bromide, 1138–42
Flash photolysis study of phenyl–substituted phenols, quinones, and corresponding free radicals. Part 3. Intermediates in the photolysis of phenyl–substituted phenols, 1237–9
Unsymmetrically substituted furoxans. Part 6. 3–Nitro–4–phenylfuroxan: reaction with sodium methoxide and x–ray structural analysis, 1240–2
Kinetics and mechanisms of the Bamberger rearrangement. Part 4. Rearrangement of sterically hindered phenylhydroxylamines to 4–aminophenols in aqueous sulfuric acid solution, 1596–8
PHENYLALANINE
On the mechanism of the action of thermolysin: kinetic study of the thermolysin–catalyzed condensation reaction of N–benzyloxycarbonyl–L–aspartic acid with L–phenylalanine methyl ester, 356–60
PHENYLALKYLBICYCLOOCTANE
The synthesis of 1,4–disubstituted bicyclo[2.2.2]octanes exhibiting wide–range, enantiotropic nematic phases, 26–31
PHENYLAMINO
The heterogeneous thermal transformation of the orange diethyl N,N'–diphenyl–2,5–diaminoterephthalate–benzene complex to the red solvent–free compound. X–ray crystal structures of the two forms, 1583–90
PHENYLAZODIETHYLANILINE
Dipole moments of derivatives of 4–phenylazo–N,N–diethylaniline and of 9–phenylazojulolidine (9–phenylazo–2,3,6,7–tetrahydro–1H,5H–benzo[ij]quinolizine), 1292–4

PHENYLAZOJULOLIDINE
Dipole moments of derivatives of 4–phenylazo–N,N–diethylaniline and of 9–phenylazojulolidine (9–phenylazo–2,3,6,7–tetrahydro–1H,5H–benzo[ij]quinolizine), 1292–4
PHENYLDIAMINOTEREPHTHALATE
The heterogeneous thermal transformation of the orange diethyl N,N'–diphenyl–2,5–diaminoterephthalate–benzene complex to the red solvent–free compound. X–ray crystal structures of the two forms, 1583–90
PHENYLDIAZEPINIUM
The electrochemical reduction of N,N'–disubstituted 6'–phenyl–2,3–dihydro–1,4–diazepinium salts: formation of bis(tetrahydrodiazepinyls) and a diimidazolidinylbutadiene, 801–6
PHENYLDISTANNACYCLODECANE
The characterization of 1,1–diphenylstannacyclopentane and 1,1,6,6–tetraphenyl–1,6–distannacyclodecane. An x–ray diffraction study of the distannacyclodecane, 369–75
PHENYLETHYLENE
Thermal decomposition of diazodiphenylmethane catalyzed by sulfur compounds in the presence of oxygen, 1437–42
PHENYLHEXADIENEDIAL
The electrochemical reduction of N,N'–disubstituted 6'–phenyl–2,3–dihydro–1,4–diazepinium salts: formation of bis(tetrahydrodiazepinyls) and a diimidazolidinylbutadiene, 801–6
PHENYLHYDRAZONE
Crystal and molecular structures of butan–2–one p–nitrophenylhydrazone, propanal 2,4–dinitrophenylhydrazone, dimethyl 2–oxopropanedioate phenylhydrazone, and dimethyl 2–oxopropanedioate 2,4–dinitrophenylhydrazone: hydrogen bonding and bond order in phenylhydrazones, 155–60
Syn–anti–photoisomerization of chelated arylhydrazones of 1,2,3–triketones: a correction, 219
Kinetics and mechanism of the reaction of substituted phenylhydrazones with thallium(III) acetate. Reactions of mercury(II) acetate with nitrogen compounds. Part 8, 1243–6
Mononuclear heterocyclic rearrangements. Part 7. Evidence for general base catalysis in the rearrangement of the Z–phenylhydrazone of 3–benzoyl–5–phenyl–1,2,4–oxadiazole into 2,5–diphenyl–4–benzoylamino–1,2,3–triazole in dioxane–water, 1325–8
PHENYLHYDROXYLAMINE
Kinetics and mechanisms of the Bamberger rearrangement. Part 4. Rearrangement of sterically hindered phenylhydroxylamines to 4–aminophenols in aqueous sulfuric acid solution, 1596–8
PHENYLIMIDAZOTHIAZOLE
The structures of the products of three condensation reactions: crystal and molecular structures of 5,6–dihydrothiazolo[2,3–c][1,2,4]thiadiazol–3–one, 6β–(1–ethyl–1–hydroxypropyl)–5α–phenyl–2,3,5,6–tetrahydroimidazo[2,1–b]thiazole, and 5,5–diphenyl–2,3–dihydroimidazo[2,1–b]thiazol–6(5H)–one, 789–93
PHENYLIMIDAZOTHIAZOLONE
The structures of the products of three condensation reactions: crystal and molecular structures of 5,6–dihydrothiazolo[2,3–c][1,2,4]thiadiazol–3–one, 6β–(1–ethyl–1–hydroxypropyl)–5α–phenyl–2,3,5,6–tetrahydroimidazo[2,1–b]thiazole, and 5,5–diphenyl–2,3–dihydroimidazo[2,1–b]thiazol–6(5H)–one, 789–93
PHENYLIMINOPYRAN
The effect of salt formation on the molecular structure and charge distribution in imines: the crystal and molecular structures and the ultraviolet, infrared, and the proton and carbon–13 nuclear magnetic resonance spectra of 2,6–dimethyl–4–(p–nitrophenylimino)pyran and its hydrobromide and methobromide salts, 303–9
PHENYLMETHOXYPHENOXYL
Flash photolysis study of phenyl–substituted phenols, quinones, and corresponding free radicals. Part 2. Dimerization of 2,6–diphenyl–4–methoxyphenoxyl radical in various solvents, 1234–6
PHENYLMETHYL
Thermal decomposition of diazodiphenylmethane catalyzed by sulfur compounds in the presence of oxygen, 1437–42
PHENYLNITROPHENYL
The kinetics of the reaction of phenyl 2,4,6–trinitrophenyl ether with aniline in methanol, acetonitrile, tetrahydrofuran, ethyl acetate, and benzene, 399–402
PHENYLOXAZOLINONE
The influence of remote substituents on amide bond formation. The reaction of oxazolinones with benzylamine, 140–2
PHENYLPENTENE
Photolysis and thermolysis of 3–n–butyl–3–phenyldiazirine, 53–7
PHENYLPENTYL
Photolysis and thermolysis of 3–n–butyl–3–phenyldiazirine, 53–7
PHENYLPHENOL
Flash photolysis study of phenyl–substituted phenols, quinones, and corresponding free radicals. Part 3. Intermediates in the photolysis of phenyl–substituted phenols, 1237–9
PHENYLPHOSPHABICYCLOOCTENE
Synthesis, stereochemistry, and molecular and crystal structure of exo–3–phenyl–3–phosphabicyclo[3.2.1]oct–6–ene 3–oxide, 1000–4
PHENYLPHOSPHINE
Synthesis, stereochemistry, and molecular and crystal structure of exo–3–phenyl–3–phosphabicyclo[3.2.1]oct–6–ene 3–oxide, 1000–4
PHENYLPROPENONE
Photocyclization of aryl halides. Part 2. The upper excited state reactivity of 3–(2–haloanilino)–1,3–diphenylprop–2–enones: hydrogen–bonded configurational lock in photosynthesis, 1010–14
PHENYLSTANNACYCLOPENTANE
The characterization of 1,1–diphenylstannacyclopentane and 1,1,6,6–tetraphenyl–1,6–distannacyclodecane. An x–ray diffraction study of the distannacyclodecane, 369–75
PHENYLSULFONYL
Nucleophilic substitution at sulfonyl sulfur. Part 2. Hydrolysis and alcoholysis of aromatic sulfonyl chlorides, 438–41
PHENYLTHIOHYDANTOIN
The structures of the products of three condensation reactions: crystal and molecular structures of 5,6–dihydrothiazolo[2,3–c][1,2,4]thiadiazol–3–one, 6β–(1–ethyl–1–hydroxypropyl)–5α–phenyl–2,3,5,6–tetrahydroimidazo[2,1–b]thiazole, and 5,5–diphenyl–2,3–dihydroimidazo[2,1–b]thiazol–6(5H)–one, 789–93
PHOSPHABICYCLOOCTENE
Synthesis, stereochemistry, and molecular and crystal structure of exo–3–phenyl–3–phosphabicyclo[3.2.1]oct–6–ene 3–oxide, 1000–4
PHOSPHANE
Bicyclic phosphanes: synthesis, stereochemistry, and conformation, 19–25
PHOSPHATE
Organic peroxides. Part 12. The preparation and properties of some triazinyl peroxides, 1512–19
PHOSPHETANIUM
Synthesis, stereochemistry, and crystal and molecular structure of 4–bromo–1,2,2,3–tetramethyl–1–phenylphosphetanium bromide, 1138–42
PHOSPHINE
An electron spin resonance study of radical addition to bis(trimethylsilyl)amino(trimethylsilylimino)phosphine, $(Me_3Si)_2NP{:}NSiMe_3$ 866–9
Electron spin resonance studies of thiophosphoranyl radicals. The mechanism of ligand permutation in phosphoranyl radicals, 1211–20
PHOSPHOGLYCERATE
Conformational analysis of 2– and 3–phosphoglyceric acids by proton and carbon–13 nuclear magnetic resonance spectroscopy, 494–9
PHOSPHONATE
An electron spin resonance study of alkyl radical addition to diethyl vinylphosphonate, 161–6
PHOSPHORANYL
Electron spin resonance studies of thiophosphoranyl radicals. The mechanism of ligand permutation in phosphoranyl radicals, 1211–20
PHOSPHORIC
Electrophilic aromatic substitution. Part 26. The kinetics and mechanism of nitration of some reactive benzene derivatives in aqueous phosphoric acid. The identification of steps rate–limited by nitronium ion formation and by diffusion, 848–51
PHOSPHORIMIDOYL
An electron spin resonance study of radical addition to bis(trimethylsilyl)amino(trimethylsilylimino)phosphine, $(Me_3Si)_2NP{:}NSiMe_3$ 866–9
PHOSPHORUS
A laser flash photolysis study of tert–butoxyphosphoranyl radicals. Optical spectra and kinetics of formation, fragmentation, and rearrangement, 905–11
PHOTOCHEM
Photolysis and thermolysis of 3–n–butyl–3–phenyldiazirine, 53–7
Orientation in photochemical substitution of phenyl and methyl radicals in toluene: MO calculation, 110–12

PHOTOCHEM(contd)
Photochromic heterocyclic fulgides. Part 3. The use of (E)-α-(2,5-dimethyl-3-furylethylidene)(isopropylidene)succinic anhydride as a simple convenient chemical actinometer, 341–3
Thermal and photochemical reactions of organocobaloximes with diphenyl disulfide and diphenyl diselenide, 393–8
Selectivity in the halogenation of hexane by tertiary aminium radicals from the photodecomposition of N-haloammonium perchlorates, 545–52
An electron spin resonance study of pentadienyl and related radicals: homolytic fission of cyclobut-2-enylmethyl radicals, 633–41
Photolysis of the carbon–hydrogen bond in pentamethylcyclopentadiene. Properties of the pentamethylcyclopentadienyl radical, 692–6
Mechanisms for aromatic photocyanation: naphthalene and biphenyl, 713–19
The type A zwitterion in cyclohexadienone photochemistry: chemical trapping and stereochemistry, 736–40
Photocyclization of aryl halides. Part 2. The upper excited state reactivity of 3-(2-haloanilino)-1,3-diphenylprop-2-enones: hydrogen-bonded configurational lock in photosynthesis, 1010–14
Intramolecular [2 + 2] photoaddition of a 1,7-diene, 1473–80
PHOTOCHROMISM
Photochromic heterocyclic fulgides. Part 3. The use of (E)-α-(2,5-dimethyl-3-furylethylidene)(isopropylidene)succinic anhydride as a simple convenient chemical actinometer, 341–3
PHOTOCLEAVAGE
The photochemistry of sulfoxides. A CIDNP study of carbon–sulfur bond cleavage paths, 1417–29
PHOTOCYCLIZATION
Photochromic heterocyclic fulgides. Part 3. The use of (E)-α-(2,5-dimethyl-3-furylethylidene)(isopropylidene)succinic anhydride as a simple convenient chemical actinometer, 341–3
PHOTOELEC
Free energy relationships of ionization energies measured by ultraviolet photoelectron spectroscopy in substituted pyrroles, 656–9
PHOTOELECTRON
Conformation and photoelectron spectra of 2-(2-furyl)pyrrole and 2-(2-thienyl)pyrrole, 127–31
Dipole moment and helium(I) photoelectron spectroscopic studies of the conformation of di-2-pyridyl and diphenyl dichalcogenides R_2X_2 (X = S, Se, or Te), 281–5
Photoelectron spectroscopic studies of some 2-azabicyclo[2.2.2]octan-5-one and bicyclo[2.2.2]octanone derivatives, 991–4
Conformation and stereodynamics of 2-dialkylamino-1,3-dimethyl-2,3-dihydro-1H-1,3,2-benzodiazaphospholes. An experimental nuclear magnetic resonance, ultraviolet photoelectron, and theoretical MNDO investigation, 1411–16
PHOTOGALVANIC
Photogalvanic cells. Part 14. The synthesis and characterization of disulfonated thionines, 794–800
PHOTOGALVANISM
Photogalvanic cells. Part 14. The synthesis and characterization of disulfonated thionines, 794–800
PHOTOLYSIS
Photolysis and thermolysis of 3-n-butyl-3-phenyldiazirine, 53–7
Syn–anti-photoisomerization of chelated arylhydrazones of 1,2,3-triketones: a correction, 219
The wavelength- and solvent-dependent photochemistry of 1,1-dicyano-2-methyl-4-phenylbut-1-ene; reaction from two excited states, 774–82
Electron spin resonance study of inversion and conformations in 1-hydroxycyclohexyl radicals, 1143–7
Flash photolysis study of phenyl-substituted phenols, quinones, and corresponding free radicals. Part 3. Intermediates in the photolysis of phenyl-substituted phenols, 1237–9
Organic peroxides. Part 12. The preparation and properties of some triazinyl peroxides, 1512–19
PHOTOPRODUCT
Carbonyl n–π* absorption enhancement in β-phenylketones: the molecular geometry of the 6-benzyl-2,6-dimethylcyclohexa-2,4-dienone Diels–Alder dimer and its photocage product, 442–6
PHOTOREARRANGEMENT
The photochemistry of sulfoxides. A CIDNP study of carbon–sulfur bond cleavage paths, 1417–29
PHTHALOCYANINE
Molecular interactions in nonaqueous solvents. Part 3. Kinetics and energetics of dimerization of a tetrasubstituted copper(II) phthalocyanine dye, 765–9
PHYS
Linear free energy relationships. Part 10. Synthesis, thermal, spectral, electrochemical, and hole transport (conduction) properties of some novel carbazole derivatives, 1267–73
PI
Carbon-13 nuclear magnetic resonance spectra of 3,7-disubstituted bicyclo[3.3.1]nonanes: conformation and through-space interaction, 90–3
Carbon-13 substituent chemical shifts in the side-chain carbons of aromatic systems: the importance of π-polarization in determining chemical shifts, 753–9
A theoretical investigation of the π-polarization mechanism. The importance of localized and extended polarization, 760–4
PICRATE
The crystal structures of 1,5,12,16,23,26,29,32,35-nonaoxa[$13^{3.14}$]-[5.5]orthocyclophane and its complex with rubidium picrate, 1606–15
PICRYL
The kinetics of the reactions of picryl chloride with some substituted anilines. Part 7. 2-Substituted and 2,5-disubstituted anilines, 883–5
PICRYLATION
The kinetics of the reactions of picryl chloride with some substituted anilines. Part 7. 2-Substituted and 2,5-disubstituted anilines, 883–5
PIPERAZINE
The crystal structures of a macrocycle containing 2,6-pyridino and piperazino subunits and of the tetrachlorocobaltate(II) salt of i diprotonated cation, 331–5
PIPERIDINE
The stabilities of Meisenheimer complexes. Part 25. Kinetic studies of the reaction of 1,3,5-trinitrobenzene with aliphatic amines in dimethyl sulfoxide, 533–9
Catalysis in aromatic nucleophilic substitution. Part 5. Reactions of piperidine with methyl 2-methoxy-3-nitrothiophene-5-carboxylate and 5-acetyl-2-methoxy-3-nitrothiophene, 642–4
Optical rotatory dispersion and absolute configuration. Part 32. Circular dichroism and conformation of 3-hydroxypiperidines, 697–8
Reactions of nitroanisoles. Part 2. Reactions of 2,4- and 2,6-dinitroanisole with piperidines in benzene, 995–9
PIPERIDINO
Catalysis in aromatic nucleophilic substitution. Part 5. Reactions of piperidine with methyl 2-methoxy-3-nitrothiophene-5-carboxylate and 5-acetyl-2-methoxy-3-nitrothiophene, 642–4
PIPERIDINOPROPIOPHENONE
Intramolecular catalysis in the enolization of β-piperidinopropiophenone and its methiodide derivative, 1351–7
POLAR
Kinetics and mechanism of the reactions of primary amines with pyrylium cations, 571–5
The fluorescence of some dipolar N,N-dialkyl-4-(dichloro-1,3,5-triazinyl)anilines. Part 2. Temperature and solvent effects on the radiationless decay of an intramolecular charge-transfer excited singlet state, 918–23
POLARITY
Statistical analysis of solvatochromic shift data, 104–9
POLARIZATION
Carbon-13 substituent chemical shifts in the side-chain carbons of aromatic systems: the importance of π-polarization in determining chemical shifts, 753–9
A theoretical investigation of the π-polarization mechanism. The importance of localized and extended polarization, 760–4
POLAROG
Polarography of some arylazothiohydantoin derivatives, 344–9
POLEMIC
Syn–anti-photoisomerization of chelated arylhydrazones of 1,2,3-triketones: a correction, 219
POLYETHER
Crystal structure of two bridged macrobicyclic polyethers, 1,5,12,16,23,26,29-heptaoxa[$7^{3.14}$][5.5]orthocyclophane and 1,5,12,16,23,26,29,32-octaoxa[$10^{3.14}$][5.5]orthocyclophane, 12–18
PORPHYRIN
Preparation and spectroscopic properties of pure tetrabenzoporphyrins, 1005–9

POTASSIUM
The crystal structure of 1,4,7,14,17,20,28,35–octaoxa[$2^{3,29}.2^{18,34}$][7.-7]orthocyclophane and its multihydrated complex with potassium chloride, 1–11
POTENTIAL
Barriers to intramolecular hydride transfers in some polycyclic hydroxyketones, 175–84
Conformational studies by dynamic nuclear magnetic resonance. Part 20. Internal motion in hydrazones and related derivatives, 604–9
Photoelectron spectroscopic studies of some 2–azabicyclo[2.2.2]octan–5–one and bicyclo[2.2.2]octanone derivatives, 991–4
Linear free energy relationships. Part 10. Synthesis, thermal, spectral, electrochemical, and hole transport (conduction) properties of some novel carbazole derivatives, 1267–73
The effect of salt formation on structure and charge distribution in imines. Part 4. Energy barriers to isomerization about the carbon–nitrogen bond in 2,6–dimethyl–4–aryliminopyrans and their salts: solvent and substituent effects, and evidence for isomerization mechanisms, 1501–7
PROFILE
Nitration in aqueous nitric acid: the rate profile and the limiting reaction rates, 94–9
PROMOTION
Radical–induced hydrogen exchange in the presence of reducing transition metal ions, 1230–3
PROPANAL
Crystal and molecular structures of butan–2–one p–nitrophenylhydrazone, propanal 2,4–dinitrophenylhydrazone, dimethyl 2–oxopropanedioate phenylhydrazone, and dimethyl 2–oxopropanedioate 2,4–dinitrophenylhydrazone: hydrogen bonding and bond order in phenylhydrazones, 155–60
PROPANOL
Induction of instantaneous chain reactions in the peroxodiphosphate–iron(II) system by selected substrates during a titrimetric procedure, 1280–2
PROPENONE
Photocyclization of aryl halides. Part 2. The upper excited state reactivity of 3–(2–haloanilino)–1,3–diphenylprop–2–enones: hydrogen–bonded configurational lock in photosynthesis, 1010–14
PROPERTIES
The synthesis of 1,4–disubstituted bicyclo[2.2.2]octanes exhibiting wide–range, enantiotropic nematic phases, 26–31
PROPIOLATE
Ionization constants of 3–substituted propiolic acids in water, 1341–3
PROPYL
Alkyl nitrites as nitrosating agents. Kinetics and mechanism of the reactions of propyl nitrite in propan–1–ol, 1021–4
PROTIODETRITIATION
Electrophilic aromatic substitution. Part 28. Rate factors for protiodetritiation of all positions of hexahelicene (benzo[c]naphtho[1,2–g]phenanthrene): the reactivity of bent benzene rings, 675–83
Electrophilic aromatic substitution. Part 29. Protiodetritiation of 4H–cyclopenta[def]phenanthrene: the substituent activation factor A_f, 1153–6
PROTODEBROMINATION
Electrophilic substitution with rearrangement. Part 9. Dienones derived from brominations of o–, m–, and p–cresol, 32–41
PROTON
Cope interconversions of the 9–methoxy–endo–tricyclo[4.2.1.$0^{2,5}$]non–3,7–dienyl cation and its [4.3.0.$0^{2,5}$] tautomer. Evidence of enhanced ionic stability by delocalization of neighboring σ bonds 457–63
The stabilities of Meisenheimer complexes. Part 25. Kinetic studies of the reaction of 1,3,5–trinitrobenzene with aliphatic amines in dimethyl sulfoxide, 533–9
Nuclear magnetic resonance study of the protonation of 2,6–dimethyl–γ–pyrone and related bases in superacid systems, 812–16
A nondestructive reactivity index of carbohydrates. The hydroxy protonation rates in dimethyl sulfoxide, 1329–35
1,8–Dimorpholinonaphthalene: proton transfer reactions, 1566–71
PROTONATION
Protonation of alkyl aryl sulfides in antimony pentafluoride–fluorosulfonic acid solution, 62–4
The acid–catalyzed hydrolysis of episulfoxides, 132–9
The role of solvent in the mechanism of protonation of benzene and ethylene, 708–12
Proton and carbon–13 nuclear magnetic resonance studies of substituted pyrimidines. Part 6. Carbon–13–proton coupling constants for some monoprotonated methyl– and aminopyrimidines, 783–8
Nuclear magnetic resonance study of the protonation of 2,6–dimethyl–γ–pyrone and related bases in superacid systems, 812–16
Protiodesilylation of substituted 2–trimethylsilylthiophenes, 931–4
Dienone–phenol rearrangements of bicyclic cyclohexa–2,5–dien–1–ones; kinetic studies of the importance of a multistage mechanism 935–9
The effect of charge and of electron density on the nuclear magnetic resonance parameters of conjugated systems: some isoelectronic anions and cations, 1287–91
A nondestructive reactivity index of carbohydrates. The hydroxy protonation rates in dimethyl sulfoxide, 1329–35
MNDO study of the site of protonation in methylsydnone, 1462–6
Studies on mesoionic compounds. Part 4. Protonation equilibriums of 2,3–diaryl–2H–tetrazolium–5–thiolates and 1,3,4–thiadiazolium–2–thiolates in aqueous perchloric acid solutions, 1534–7
PYRANONE
Nuclear magnetic resonance study of the protonation of 2,6–dimethyl–γ–pyrone and related bases in superacid systems, 812–16
PYRIDINE
Reactions of N–heteroaromatic bases with nitrous acid. Part 6. Kinetics of the nitrosation of 2– and 4–methylaminopyridine and their 1–oxide derivatives, 239–47
Reactions of N–heteroaromatic bases with nitrous acid. Part 7. Kinetics of the nitrosation of secondary and of the diazotization of primary β–aminopyridines, 248–55
The crystal structures of a macrocycle containing 2,6–pyridino and piperazino subunits and of the tetrachlorocobaltate(II) salt of its diprotonated cation, 331–5
Pyridine nitrogen reactivity, 409–13
The conformation of 4–acetylpyridine determined from proton and deuterium nuclear magnetic resonance spectra of a nematic phase 540–4
The pyridine–catalyzed reaction of methanol with phenyl isocyanate in tetrachloromethane, 664–9
PYRIDINIUM
Pyridine nitrogen reactivity, 409–13
PYRIDYL
Dipole moment and helium(I) photoelectron spectroscopic studies of the conformation of di–2–pyridyl and diphenyl dichalcogenides R_2X_2 (X = S, Se, or Te), 281–5
Perfluoro effects in nitrogen–15 nuclear magnetic resonance spectroscopy. Part 1. Aryl and N–heteroaryl azides, 975–9
PYRIDYLMETHANOL
The pyridine–catalyzed reaction of methanol with phenyl isocyanate in tetrachloromethane, 664–9
PYRIMIDINE
Proton and carbon–13 nuclear magnetic resonance studies of substituted pyrimidines. Part 6. Carbon–13–proton coupling constants for some monoprotonated methyl– and aminopyrimidines, 783–8
Perfluoro effects in nitrogen–15 nuclear magnetic resonance spectroscopy. Part 1. Aryl and N–heteroaryl azides, 975–9
PYRIMIDINONE
Elimination and hydrolysis reactions of 4–alkoxyimino–5,6–dihydro–6–alkoxyaminopyrimidin–2(1H)–ones and 4–alkoxyimino–5–fluoro–5,6–dihydro–6–alkoxyaminopyrimidin–2(1H)–ones in strong acid media, 113–20
PYRROLE
Conformation and photoelectron spectra of 2–(2–furyl)pyrrole and 2–(2–thienyl)pyrrole, 127–31
Free energy relationships of ionization energies measured by ultraviolet photoelectron spectroscopy in substituted pyrroles, 656–9
PYRROMETHENONE
Crystal and molecular structure of a photoisomer of an oxodipyrromethene: the E–isomer of 3,4–dimethyl–2,2'–pyrromethen–5(1H)–one, 1525–8
PYRYLIUM
Kinetics and mechanism of the reactions of primary amines with pyrylium cations, 571–5

QUATERNARY
Nitration in aqueous nitric acid: the rate profile and the limiting reaction rates, 94–9
QUATERNIZATION
Pyridine nitrogen reactivity, 409–13
Reaction of N,N'–dimethylimidazolidine–2–thione with methyl iodide. Kinetic and thermodynamic aspects, 414–18
QUENCHED
Kinetics and intermediates in the several forward and reverse reactions of nitro–substituted arenediazonium ions with hydroxide ion, 1221–9
QUINAZOLONE
Solid–state transformations and crystal structure analysis of α– and β–o–acetamidobenzamide, 233–8
QUINUCLIDINOL
Optical rotatory dispersion and absolute configuration. Part 32. Circular dichroism and conformation of 3–hydroxypiperidines, 697–8
RADICAL
Orientation in photochemical substitution of phenyl and methyl radicals in toluene: MO calculation, 110–12
Reactions of 1,1–dialkoxyalkene radical cations in aqueous solution with OH^-, HPO_4^{2-}, and H_2O. Electron spin resonance spectroscopic, pulse conductometric, and product analytical studies, 143–54
An electron spin resonance study of alkyl radical addition to diethyl vinylphosphonate, 161–6
Radiation mechanisms. Part 21. Electron spin resonance studies of the effect of ionizing radiation on halobenzenes: the formation of σ^* anions and ipso addition radicals, 185–92
Electron spin resonance studies. Part 59. Radical reactions of thiophens: the formation and reactions of some sulfur–conjugated radical–cations, 207–18
Electron spin resonance studies of spin trapping. On the role of hydroxylamines and an oxaziridine in the formation of nitroxides following addition of hydroxyalkyl radicals to N–tert–butyl–α–phenylnitrone, 379–81
Electron spin resonance and molecular orbital study of radicals in irradiated fluoro–derivatives, 425–31
An electron spin resonance study of pentadienyl and related radicals: homolytic fission of cyclobut–2–enylmethyl radicals, 633–41
Photolysis of the carbon–hydrogen bond in pentamethylcyclopentadiene. Properties of the pentamethylcyclopentadienyl radical, 692–6
Reactions of the methylthiyl radical with unsaturated cycloalkanes: abstraction, addition, and rearrangement, 703–7
The electron spin resonance spectrum of the fulvalene radical anion 747–50
Free radical studies by resonance Raman spectroscopy: phenothiazine, 10–methylphenothiazine, and phenoxazine radical cations, 852–9
An electron spin resonance study of radical addition to bis(trimethylsilyl)amino(trimethylsilylimino)phosphine, $(Me_3Si)_2NP{:}NSiMe_3$ 866–9
Free radical reactions of the phenothiazine, metiazinic acid, 890–5
A laser flash photolysis study of tert–butoxyphosphoranyl radicals. Optical spectra and kinetics of formation, fragmentation, and rearrangement, 905–11
Electron spin resonance studies. Part 60. Detection of radical–cations from vinyl sulfides: evidence for a cyclic structure, 1066–9
Free radical reactions in solution. Part 6. Thermal decomposition of substituted dibenzyl mercurials in solution. An improved $\sigma\cdot$ scale 1121–6
Free radical reactions in solution. Part 7. Substituent effects on free radical reactions: comparison of the $\sigma\cdot$ scale with other measures of radical stabilization, 1127–31
An electron spin resonance investigation of the radical anions of the benzoylpyridines, 1148–52
Unstable intermediates. Part 194. Alkyl radical–halide ion adducts: an electron spin resonance study of the radiolysis of a range of alkyl bromides and iodides, 1180–5
Radical reactions of carbohydrates. Part 2. An electron spin resonance study of the oxidation of D–glucose and related compounds with the hydroxyl radical, 1186–99
Electron spin resonance studies of thiophosphoranyl radicals. The mechanism of ligand permutation in phosphoranyl radicals, 1211–20
Flash photolysis study of phenyl–substituted phenols, quinones, and corresponding free radicals. Part 2. Dimerization of 2,6–diphenyl–4–methoxyphenoxyl radical in various solvents, 1234–6
Paramagnetic intermediates in the thermal reactions of benzo[2,1–b;3,4–b']dithiophene–4,5–dione with some metal(III) compounds of the heavier Group VA elements, 1274–9
Radical–anion intermediates. Part 8. The influence of a crown ether on the fluorene and 9–methylfluorene radical–anions, 1295–7
The radical anion of [2$_4$](1,2,4,5)cyclophane, 1298–303
Linewidth alternation in the electron spin resonance spectrum of the fluorene radical anion in the presence of dibenzo crown ethers, 1384–91
Electron spin resonance studies. Part 61. The generation and reactions of the tert–butoxyl radical in aqueous solution, 1392–400
Electron spin resonance studies. Part 62. Acid–catalyzed interconversion of β–hydroxyalkyl radicals: radical–cation intermediates, 1401–5
Heterocyclic free radicals. Part 10. Phenothiazine cation radicals as probes of the inductive effect, 1492–500
The influence of crown ethers on the rate of intramolecular cation exchange involving the 5,12–dihydrotetracene radical anion, 1508–11
Organic peroxides. Part 12. The preparation and properties of some triazinyl peroxides, 1512–19
RADIOLYSIS
Electron spin resonance and molecular orbital study of radicals in irradiated fluoro–derivatives, 425–31
RADN
Photogalvanic cells. Part 14. The synthesis and characterization of disulfonated thionines, 794–800
RAMAN
Vibrational spectroscopy and conformations of 2–alkoxycarbonyl–3–aminoacrylic esters, 561–70
Free radical studies by resonance Raman spectroscopy: phenothiazine, 10–methylphenothiazine, and phenoxazine radical cations, 852–9
RATE
Nitration in aqueous nitric acid: the rate profile and the limiting reaction rates, 94–9
REACTION
The effect of structure change in bases on their reaction with 2,4–dinitrophenyl arylmethanesulfonate esters in water, 78–81
Photolysis of the carbon–hydrogen bond in pentamethylcyclopentadiene. Properties of the pentamethylcyclopentadienyl radical, 692–6
Reactions of the methylthiyl radical with unsaturated cycloalkanes: abstraction, addition, and rearrangement, 703–7
The reaction of CH_4^+, CH_3^+ and other simple carbocations with benzene in the gas phase, 838–41
Kinetics and intermediates in the several forward and reverse reactions of nitro–substituted arenediazonium ions with hydroxide ion, 1221–9
Radical–induced hydrogen exchange in the presence of reducing transition metal ions, 1230–3
Unsymmetrically substituted furoxans. Part 6. 3–Nitro–4–phenylfuroxan: reaction with sodium methoxide and x–ray structural analysis, 1240–2
Kinetics and mechanism of the reaction of substituted phenylhydrazones with thallium(III) acetate. Reactions of mercury(II) acetate with nitrogen compounds. Part 8, 1243–6
Induction of instantaneous chain reactions in the peroxodiphosphate–iron(II) system by selected substrates during a titrimetric procedure, 1280–2
Electroorganic reactions. Part 17. The competition between cleavage and ylide formation in the cathodic reduction of benzyl–allyl–, cinnamyl–, and polyenylphosphonium salts, 1520–3
The influence of the solvent on organic reactivity. Part 4. Spectroscopic parameters of Lewis basicity and acidity of hydroxylic solvents. A comprehensive correlation analysis of the log k values for the reactions of diazodiphenylmethane with benzoic acid in aprotic and hydroxylic solvents at 37°C, 1572–6
REACTIVITY
The polarization and charge–transfer (PCT) theoretical model for the prediction and the interpretation of the relationship between reactivity and selectivity, 645–51
Electrophilic aromatic substitution. Part 28. Rate factors for protiodetritiation of all positions of hexahelicene (benzo[c]naphtho[1,2–g]phenanthrene): the reactivity of bent benzene rings, 675–83
Electrophilic aromatic substitution. Part 29. Protiodetritiation of

REACTIVITY(contd)
4H–cyclopenta[def]phenanthrene: the substituent activation factor A_f, 1153–6
REAGENT
Studies on the mechanism of the enolization reaction of Grignard reagents and ketones. Part 2. Pseudo–first–order rate and deuterium isotope effect studies, 473–7
Stereochemistry of addition to the carbonyl group. Part 17. Study of the factors affecting asymmetric induction in condensation reactions of methyl– and phenylmagnesium bromide with chiral carbonyl compounds, 597–603
Radical–induced hydrogen exchange in the presence of reducing transition metal ions, 1230–3
Alteration of the cis:trans isomer ratio in N–methylformamide using lanthanide shift reagents. Determination of the equilibrium constants for complexation, 1481–5
REARRANGEMENT
Electrophilic substitution with rearrangement. Part 9. Dienones derived from brominations of o–, m–, and p–cresol, 32–41
Barriers to intramolecular hydride transfers in some polycyclic hydroxyketones, 175–84
Kinetics and mechanisms of the Bamberger rearrangement. Part 3. Rearrangement of phenylhydroxylamines to p–aminophenols in aqueous sulfuric acid solutions, 298–302
Cope interconversions of the 9–methoxy–endo–tricyclo[4.2.1.$0^{2,5}$]non–a–3,7–dienyl cation and its [4.3.0.$0^{2,5}$] tautomer. Evidence of enhanced ionic stability by delocalization of neighboring σ bonds 457–63
Ipso attack in the nitration of aromatic amines. Part 1. The reactions of N,N–dimethyl–p–toluidine and some related compounds, 518–25
Reactions of the methylthiyl radical with unsaturated cycloalkanes: abstraction, addition, and rearrangement, 703–7
A laser flash photolysis study of tert–butoxyphosphoranyl radicals. Optical spectra and kinetics of formation, fragmentation, and rearrangement, 905–11
Dienone–phenol rearrangements of bicyclic cyclohexa–2,5–dien–1–ones; kinetic studies of the importance of a multistage mechanism 935–9
Unimolecular reactions of isolated organic ions: some isomers of $C_6H_{14}^{\bullet+}$, 958–66
Small rings. Part 32. The gas phase kinetics, mechanism, and energy hypersurface for the thermolyses of syn– and anti–tricyclo[4.2.0.–$0^{2,5}$]octane, 1076–83
Mononuclear heterocyclic rearrangements. Part 7. Evidence for general base catalysis in the rearrangement of the Z–phenylhydrazone of 3–benzoyl–5–phenyl–1,2,4–oxadiazole into 2,5–diphenyl–4–benzoylamino–1,2,3–triazole in dioxane–water, 1325–8
Kinetics and mechanisms of the Bamberger rearrangement. Part 4. Rearrangement of sterically hindered phenylhydroxylamines to 4–aminophenols in aqueous sulfuric acid solution, 1596–8
REARRANGMENT
Ipso attack in the nitration of aromatic amines. Part 1. The reactions of N,N–dimethyl–p–toluidine and some related compounds, 518–25
REDN
Polarography of some arylazothiohydantoin derivatives, 344–9
The one–electron reduction of carbonium ions. Part 14. Effect of successive introduction of methyl substituents on the reducibility of tropylium ion in chromium(II) ion and cathodic reductions, 670–4
The electron spin resonance spectrum of the fulvalene radical anion 747–50
The electrochemical reduction of N,N'–disubstituted 6'–phenyl–2,3–dihydro–1,4–diazepinium salts: formation of bis(tetrahydrodiazepinyls) and a diimidazolidinylbutadiene, 801–6
Electrogeneration of cyanomethyl anion from phenylsulfonylacetonitrile and cyanomethyltrimesitylphosphonium iodide and the relative acidities of XCH_2CN (X = Ph_3P^+, Ph_3As^+, Mes_3P^+, or $PhSO_2$) versus acetic acid in acetonitrile, 1093–8
Electroorganic reactions. Part 17. The competition between cleavage and ylide formation in the cathodic reduction of benzyl–allyl–, cinnamyl–, and polyenylphosphonium salts, 1520–3
REGIOSELECTIVE
The Friedel–Crafts acetylatin of naphthalene. Evidence for concurrent second– and third–order reactions, 376–8
REGIOSELECTIVITY
Electrophilic substitution with rearrangement. Part 9. Dienones derived from brominations of o–, m–, and p–cresol, 32–41
Orientation in photochemical substitution of phenyl and methyl radicals in toluene: MO calculation, 110–12
Ring–opening reactions of some 1–ethoxycarbonylaziridines with acetic acid in cyclohexane, 121–6
Reactions of 1,1–dialkoxyalkene radical cations in aqueous solution with OH^-, HPO_4^{2-}, and H_2O. Electron spin resonance spectroscopic, pulse conductometric, and product analytical studies, 143–54
Selectivity in the halogenation of hexane by tertiary aminium radicals from the photodecomposition of N–haloammonium perchlorates, 545–52
Selective functionalization. Part 4. Proton nuclear magnetic resonance studies of the orientation of aromatic molecules by surfactant micelles, 1616–20
RELAXATION
Nuclear magnetic resonance studies of the conformation of bilirubin and its derivatives in solution, 1374–83
RESIN
Nonsupported and resin–supported oligo(oxyethylenes) as solid–liquid phase–transfer catalysts. Effect of chain length and head–group, 514–17
RESOLVED
Kinetics and intermediates in the several forward and reverse reactions of nitro–substituted arenediazonium ions with hydroxide ion, 1221–9
RING
Kinetics and mechanism of the reactions of primary amines with pyrylium cations, 571–5
Stepwise proton transfer in the acid–catalyzed hydrolysis of 3,1–benzoxazin–4–ones: electrostatic or hydrogen–bond stabilization of the conjugate acid, 590–6
An electron spin resonance study of pentadienyl and related radicals: homolytic fission of cyclobut–2–enylmethyl radicals, 633–41
Cyclopropane ring opening of bicyclo[3.1.0]hexan–3–ols in fluorosulfuric acid, 948–52
Opening of the cyclopropane ring of the thujan–3–ols in fluorosulfuric acid, 953–7
The ring–opening reactions of cyclobutylmethyl and cyclobutenylmethyl radicals, 970–4
The steric course of the reaction of ethylene oxide with hydrogen halides in the gas phase, 1336–40
ROLE
Electron spin resonance studies of spin trapping. On the role of hydroxylamines and an oxaziridine in the formation of nitroxides following addition of hydroxyalkyl radicals to N–tert–butyl–α–phenylnitrone, 37°–81
ROTATION
Conformational studies by dynamic nuclear magnetic resonance. Part 20. Internal motion in hydrazones and related derivatives, 604–9
An electron spin resonance investigation of the radical anions of the benzoylpyridines, 1148–52
ROTATIONAL
Vibrational spectroscopy and conformations of 2–alkoxycarbonyl–3–aminoacrylic esters, 561–70
Restricted rotation in methyl– and cyanomethyl–tris–(2,4,6–trimethylphenyl)phosphonium compounds. A proton nuclear magnetic resonance spectroscopic study. The crystal structure of cyanomethyltris–(2,4,6–trimethylphenyl)phosphonium tetraiodomercurate(II), 1099–104
Conformational studies by dynamic nuclear magnetic resonance spectroscopy. Part 21. Structure, conformation, and stereodynamics of sulfinylhydrazines, 1449–53
RUBIDIUM
The crystal structures of 1,5,12,16,23,26,29,32,35–nonaoxa[$13^{3,14}$]–[5.5]orthocyclophane and its complex with rubidium picrate, 1606–15
SALT
The effect of salt formation on the molecular structure and charge distribution in imines: the crystal and molecular structures and the ultraviolet, infrared, and the proton and carbon–13 nuclear magnetic resonance spectra of 2,6–dimethyl–4–(p–nitrophenylimino)pyran and its hydrobromide and methobromide salts, 303–9
Aroyl peroxides. Part 7. The effects of additives on the thermolysis of aroyl peroxides in arenes and the elimination of possible complications in the measurement of partial rate factors for phenylation, 1109–20
Electroorganic reactions. Part 17. The competition between cleavage and ylide formation in the cathodic reduction of benzyl–

SALT(contd)
allyl–, cinnamyl–, and polyenylphosphonium salts, 1520–3
SANDMEYER
An investigation of the two step nature of Sandmeyer reaction, 1459–61
SCRAMBLING
The reaction of CH_4^+, CH_3^+ and other simple carbocations with benzene in the gas phase, 838–41
SELECTIVITY
The polarization and charge–transfer (PCT) theoretical model for the prediction and the interpretation of the relationship between reactivity and selectivity, 645–51
SELENIDE
Thermal and photochemical reactions of organocobaloximes with diphenyl disulfide and diphenyl diselenide, 393–8
SELENIUM
Isomerization of cis–1,2–diarylethylenes. Catalysis by selenium, methanesulfonic acid, and potassium tert–butoxide, 324–6
SELF
Photolysis of the carbon–hydrogen bond in pentamethylcyclopentadiene. Properties of the pentamethylcyclopentadienyl radical, 692–6
SEMICOND
Linear free energy relationships. Part 10. Synthesis, thermal, spectral, electrochemical, and hole transport (conduction) properties of some novel carbazole derivatives, 1267–73
SENSITIZED
The photochemistry of sulfoxides. A CIDNP study of carbon–sulfur bond cleavage paths, 1417–29
SERRULATANOATE
Structural studies of some serrulatane diterpenes, 1467–72
SERRULATENE
Structural studies of some serrulatane diterpenes, 1467–72
SESQUITERPENE
Stereochemistry of a novel sesquiterpene lactone. X–ray determination of the structure of ursiniolide A monohydrate, 660–3
SILYL
Protiodesilylation of substituted 2–trimethylsilylthiophenes, 931–4
Methanolysis of the benzylideneaniline derivatives $ArC(MMe_3)=NAr'$ (M = Si or Sn), 1043–50
Cleavages of 1–methyl–2–trimethylsilylbenzimidazole and 2–trimethylsilylbenzothiazole in methanol and related media, 1051–6
SILYLBENZIMIDAZOLE
Cleavages of 1–methyl–2–trimethylsilylbenzimidazole and 2–trimethylsilylbenzothiazole in methanol and related media, 1051–6
SILYLBENZOTHIAZOLE
Cleavages of 1–methyl–2–trimethylsilylbenzimidazole and 2–trimethylsilylbenzothiazole in methanol and related media, 1051–6
SILYLTHIOPHENE
Protiodesilylation of substituted 2–trimethylsilylthiophenes, 931–4
SIMULATION
Model calculations of isotope effects. Part 5. Secondary hydrogen isotope effects in the solvolysis of isopropyl halides, 1316–24
SODIUM
Unsymmetrically substituted furoxans. Part 6. 3–Nitro–4–phenylfuroxan: reaction with sodium methoxide and x–ray structural analysis, 1240–2
SOLAR
Photogalvanic cells. Part 14. The synthesis and characterization of disulfonated thionines, 794–800
SOLID
Solid–state transformations and crystal structure analysis of α– and β–o–acetamidobenzamide, 233–8
SOLN
Enthalpies of solution of 2,2'–bipyridyl, 1,10–phenanthroline, and 1,10–phenanthroline monohydrate, 366–8
SOLVATOCHROMATIC
Statistical analysis of solvatochromic shift data, 104–9
SOLVATOCHROMISM
Linear solvation energy relationship. Part 11. An analysis of nitrogen–15 solvent shifts in amides, 353–5
SOLVENT
Photolysis and thermolysis of 3–n–butyl–3–phenyldiazirine, 53–7
Statistical analysis of solvatochromic shift data, 104–9
Nucleophilic substitution at sulfonyl sulfur. Part 1. Reactivity of thiophene–2–sulfonyl halides in water and methanol–acetonitrile 221–7
Reactions of N–heteroaromatic bases with nitrous acid. Part 7. Kinetics of the nitrosation of secondary and of the diazotization of primary β–aminopyridines, 248–55
Linear solvation energy relationship. Part 11. An analysis of nitrogen–15 solvent shifts in amides, 353–5
Enthalpies of solution of 2,2'–bipyridyl, 1,10–phenanthroline, and 1,10–phenanthroline monohydrate, 366–8
The kinetics of the reaction of phenyl 2,4,6–trinitrophenyl ether with aniline in methanol, acetonitrile, tetrahydrofuran, ethyl acetate, and benzene, 399–402
Pyridine nitrogen reactivity, 409–13
Reaction of N,N'–dimethylimidazolidine–2–thione with methyl iodide. Kinetic and thermodynamic aspects, 414–18
Enhanced reactivities in substitution and elimination reactions in dimethyl sulfoximide, 432–7
The separation of polar and steric effects. Part 14. Kinetics of the reactions of benzoic acid and of ortho–substituted benzoic acids with diazodiphenylmethane in various alcohols, 500–8
Kinetics and mechanism of the reactions of primary amines with pyrylium cations, 571–5
Stereochemistry of addition to the carbonyl group. Part 17. Study of the factors affecting asymmetric induction in condensation reactions of methyl– and phenylmagnesium bromide with chiral carbonyl compounds, 597–603
The pyridine–catalyzed reaction of methanol with phenyl isocyanate in tetrachloromethane, 664–9
The role of solvent in the mechanism of protonation of benzene and ethylene, 708–12
The wavelength– and solvent–dependent photochemistry of 1,1–dicyano–2–methyl–4–phenylbut–1–ene; reaction from two excited states, 774–82
Electrophilic aromatic substitution. Part 25. The nitration in aqueous sulfuric acid of some cinnamic acids and other styrene derivatives, 842–7
The fluorescence of some dipolar N,N–dialkyl–4–(dichloro–1,3,5–triazinyl)anilines. Part 2. Temperature and solvent effects on the radiationless decay of an intramolecular charge–transfer excited singlet state, 918–23
α–, β–, and γ–Deuterium isotope effects in the solvolysis of octan–2–yl p–bromobenzenesulfonate in 88% aqueous trifluoroethanol and 83% aqueous hexafluoroisopropyl alcohol, 985–90
Photocyclization of aryl halides. Part 2. The upper excited state reactivity of 3–(2–haloanilino)–1,3–diphenylprop–2–enones: hydrogen–bonded configurational lock in photosynthesis, 1010–14
Tautomerism in a thioamide–nitroxide: solvent effects in terms of an electron spin resonance parameter for a 2–thiocarbonylimidazolidine 1–oxyl, 1089–92
Carbon–13 and proton nuclear magnetic resonance study of solvent effects on tautomerism in 1–aryl–3–methyltriazenes, 1161–5M.
Kinetics of the reactions of aniline and 2,2,2–trifluoroethylamine with 1,3,5–trinitrobenzene in dimethyl sulfoxide and acetonitrile, and of 2,2,2–trifluoroethylamine with 1–fluoro– and 1–chloro–2,4–dinitrobenzenes in these solvents, 1201–5
Flash photolysis study of phenyl–substituted phenols, quinones, and corresponding free radicals. Part 2. Dimerization of 2,6–diphenyl–4–methoxyphenoxyl radical in various solvents, 1234–6
An analysis of the proton and carbon–13 nuclear magnetic resonance spectra of 3–tert–butylaminoacrolein and of glyoxal–tert–butylhydrazone, 1283–6
The radical anion of [2.4](1,2,4,5)cyclophane, 1298–303
Electrophilic aromatic substitution. Part 27. Chemical selectivities disguised by mass diffusion. Part 6. The kinetics of nitration in aqueous sulfuric acid of durene, nitrodurene, and nitroprehnitene. A comparison of the rates of nitration of methylnitrobenzenes in aqueous sulfuric acid with the corresponding rates from mixing–disguised nitrations with nitronium hexafluorophosphate in nitromethane based on a theoretical mixing–reaction model, 1358–66
The kinetics and mechanism of the hydrolysis of thiol esters in aqueous solution promoted by tetrachlorogold(III) ions, 1406–10
The influence of the solvent on organic reactivity. Part 4. Spectroscopic parameters of Lewis basicity and acidity of hydroxylic solvents. A comprehensive correlation analysis of the log k values for the reactions of diazodiphenylmethane with benzoic acid in aprotic and hydroxylic solvents at 37°C, 1572–6
SOLVOLYSIS
Methanolysis (solvolysis) and synthesis of 4'–substituted 4–

SOLVOLYSIS(contd)
benzyloxybenzyl chlorides and some related compounds: comparisons with the corresponding benzoyl compounds, 100–3
Nucleophilic substitution at sulfonyl sulfur. Part 2. Hydrolysis and alcoholysis of aromatic sulfonyl chlorides, 438–41
Solvolysis of some alkyl esters of fluorosulfuric acid in water and aqueous solvents, 940–3
α–, β–, and γ–Deuterium isotope effects in the solvolysis of octan–2–yl p–bromobenzenesulfonate in 88% aqueous trifluoroethanol and 83% aqueous hexafluoroisopropyl alcohol, 985–90
Cleavages of 1–methyl–2–trimethylsilylbenzimidazole and 2–trimethylsilylbenzothiazole in methanol and related media, 1051–6
Unimolecular solvolysis of some organosilicon perchlorates and iodides, 1309–15
Model calculations of isotope effects. Part 5. Secondary hydrogen isotope effects in the solvolysis of isopropyl halides, 1316–24
SPECTRA
Conformation and photoelectron spectra of 2–(2–furyl)pyrrole and 2–(2–thienyl)pyrrole, 127–31
Metastable decomposition of $C_3H_6O^{\bullet+}$ ions, 770–3
Free radical reactions of the phenothiazine, metiazinic acid, 890–5
Unimolecular reactions of isolated organic ions: some isomers of $C_6H_{14}^{\bullet+}$, 958–66
The reactions of some common electrophiles, methyl, nitrosonium, nitronium and nitromethyl cations, with monosubstituted benzenes in the gas phase, 967–9
Photoelectron spectroscopic studies of some 2–azabicyclo[2.2.2]octan–5–one and bicyclo[2.2.2]octanone derivatives, 991–4
Gas phase thermolyses. Part 4. Gas phase thermolyses of thietane 1–oxide and 1,2–oxathiolane 2–oxide. Evidence for the intermediacy of 1,2–oxathiolane, 1166–70
Linear free energy relationships. Part 10. Synthesis, thermal, spectral, electrochemical, and hole transport (conduction) properties of some novel carbazole derivatives, 1267–73
Chemical ionization mass spectra of selected C_4H_8O compounds, 1544–53
SPECTROMETRY
The reaction of CH_4^+, CH_3^+ and other simple carbocations with benzene in the gas phase, 838–41
SPECTROPHOTOMETRY
Electrogeneration of cyanomethyl anion from phenylsulfonylacetonitrile and cyanomethyltrimesitylphosphonium iodide and the relative acidities of XCH_2CN (X = Ph_3P^+, Ph_3As^+, Mes_3P^+, or $PhSO_2$) versus acetic acid in acetonitrile, 1093–8
SPECTROSCOPY
Dipole moment and helium(I) photoelectron spectroscopic studies of the conformation of di–2–pyridyl and diphenyl dichalcogenides R_2X_2 (X = S, Se, or Te), 281–5
SPIN
Electron spin resonance studies of spin trapping. On the role of hydroxylamines and an oxaziridine in the formation of nitroxides following addition of hydroxyalkyl radicals to N–tert–butyl–α–phenylnitrone, 379–81
Proton and carbon–13 nuclear magnetic resonance studies of substituted pyrimidines. Part 6. Carbon–13–proton coupling constants for some monoprotonated methyl– and aminopyrimidines, 783–8
Unstable intermediates. Part 194. Alkyl radical–halide ion adducts: an electron spin resonance study of the radiolysis of a range of alkyl bromides and iodides, 1180–5
STABILITY
Cope interconversions of the 9–methoxy–endo–tricyclo[4.2.1.$0^{2,5}$]nona–3,7–dienyl cation and its [4.3.0.$0^{2,5}$] tautomer. Evidence of enhanced ionic stability by delocalization of neighboring σ bonds 457–63
The stabilities of Meisenheimer complexes. Part 24. Some reactions of 2,4,6–trinitrotoluene and 2,4,6–trinitrobenzyl chloride with bases, 526–32
The stabilities of Meisenheimer complexes. Part 26. The reactions of some aromatic nitro compounds with base in tert–butyl alcohol–water mixtures, 807–11
Complexation between 3–methylorotic (3–methyluracil–6–carboxylic) acid dianion and divalent metal cations. The slow acid dissociation of transition metal complexes and its possible relevance to orotic acid phosphoribosylation, 1057–61
STABILIZATION
Free radical reactions in solution. Part 7. Substituent effects on free radical reactions: comparison of the $\sigma^{\bullet}$ scale with other measures of radical stabilization, 1127–31
STANNACYCLOPENTANE
The characterization of 1,1–diphenylstannacyclopentane and 1,1,6,6–tetraphenyl–1,6–distannacyclodecane. An x–ray diffraction study of the distannacyclodecane, 369–75
STANNYL
Methanolysis of the benzylideneaniline derivatives $ArC(MMe_3)=NAr'$ (M = Si or Sn), 1043–50
STATE
Solid–state transformations and crystal structure analysis of α– and β–o–acetamidobenzamide, 233–8
Free radical studies by resonance Raman spectroscopy: phenothiazine, 10–methylphenothiazine, and phenoxazine radical cations, 852–9
Free radical reactions in solution. Part 7. Substituent effects on free radical reactions: comparison of the $\sigma^{\bullet}$ scale with other measures of radical stabilization, 1127–31
STEREOCHEM
Bicyclic phosphanes: synthesis, stereochemistry, and conformation, 19–25
Electrophilic substitution with rearrangement. Part 9. Dienones derived from brominations of o–, m–, and p–cresol, 32–41
1,8–Diacetylnaphthalene and its cyclization to 3–methyl–1H–phenalen–1–one, 58–61
Stereochemistry of addition to the carbonyl group. Part 17. Study of the factors affecting asymmetric induction in condensation reactions of methyl– and phenylmagnesium bromide with chiral carbonyl compounds, 597–603
An electron spin resonance study on the interactions between bis(pentane–2,4–dionato)copper(II) and some heterocycles. Part 2. The 1:1 adducts with aza–aromatic compounds and azacyclohexanes, 652–5
The type A zwitterion in cyclohexadienone photochemistry: chemical trapping and stereochemistry, 736–40
Nuclear magnetic resonance investigations of iminium ion intermediates. Part 9. Multinuclear study of the reaction between Lewis acids and vinylogous amides, 912–17
Naphthalene tetrachlorides and related compounds. Part 10. The carbon–13 nuclear magnetic resonance spectra of some naphthalene tetrachlorides, 1015–20
The steric course of the reaction of ethylene oxide with hydrogen halides in the gas phase, 1336–40
Routes to 3–bromoflavanone from erythro–2'–hydroxychalcone dibromide: spectral and kinetic evidence for the dominating role of elimination–addition sequences via (E)– and (Z)–α–bromo–2'–hydroxychalcones, 1367–73
The circular dichroism of (–)–(S)–3–methylthian: a study of the electronic transitions and stereochemistry of cyclic sulfur derivatives, 1529–33
STEREOISOMERISM
The mechanism for interconversion of stereoisomers in N–(2,3–dihydro–2–oxobenzoxazol–3–yl)– and N–(1,2–dihydro–2–oxoquinolin–1–yl)–N–1–methylallylarenesulfenamides, 509–13
STEREOSPECIFICITY
Aromatic C–nitroso compounds. Thermodynamics and kinetics of the equilibrium between 2,6–dimethylnitrosobenzene and its trans–dimer, 256–9
Ion–molecule reactions in the gas phase. Part 1. Stereospecific nucleophilic substitution of tertiary alcohols by ammonia, 1591–5
STERIC
The stabilities of Meisenheimer complexes. Part 25. Kinetic studies of the reaction of 1,3,5–trinitrobenzene with aliphatic amines in dimethyl sulfoxide, 533–9
Kinetics and mechanism of the reactions of primary amines with pyrylium cations, 571–5
The thermal elimination of iodine from some substituted α–iodonaphthalenes: a structural study, 610–27
The one–electron reduction of carbonium ions. Part 14. Effect of successive introduction of methyl substituents on the reducibility of tropylium ion in chromium(II) ion and cathodic reductions, 670–4
Determination of ring inversion barriers for 1H,3H–naphtho[1,8–cd]pyran and its methyl substituted derivatives by molecular mechanics calculations and dynamic nuclear magnetic resonance spectroscopy, 741–6
Electrophilic aromatic substitution. Part 29. Protiodetritiation of 4H–cyclopenta[def]phenanthrene: the substituent activation factor A_f, 1153–6
Kinetics and mechanisms of the Bamberger rearrangement. Part 4.

STERIC(contd)
Rearrangement of sterically hindered phenylhydroxylamines to 4–aminophenols in aqueous sulfuric acid solution, 1596–8
STILBENE
Electroorganic reactions. Part 17. The competition between cleavage and ylide formation in the cathodic reduction of benzyl–, allyl–, cinnamyl–, and polyenylphosphonium salts, 1520–3
STRETCH
Relationship of the oxygen–17 chemical shift to the stretching frequency of the hydroxy group in saturated alcohols, 1558–61
STYRENE
Electrophilic aromatic substitution. Part 25. The nitration in aqueous sulfuric acid of some cinnamic acids and other styrene derivatives, 842–7
STYRYLNAPHTHALENE
Conformational equilibrium in 1,2–diarylethylenes manifested in their emission in solution. Part 5. 2,6–Distyrylnaphthalene and related compounds, 1264–6
SUBSTITENT
The effect of structure change in bases on their reaction with 2,4–dinitrophenyl arylmethanesulfonate esters in water, 78–81
SUBSTITUENT
The effect of changing the substituent in the sulfonyl group in base catalyzed hydrolysis of 2,4–dinitrophenyl arylmethanesulfonate esters in aqueous solution, 72–7
Methanolysis (solvolysis) and synthesis of 4'–substituted 4–benzyloxybenzyl chlorides and some related compounds: comparisons with the corresponding benzoyl compounds, 100–3
The influence of remote substituents on amide bond formation. The reaction of oxazolinones with benzylamine, 140–2
Nucleophilic substitution at sulfonyl sulfur. Part 1. Reactivity of thiophene–2–sulfonyl halides in water and methanol–acetonitrile 221–7
Isomerization of cis–1,2–diarylethylenes. Catalysis by selenium, methanesulfonic acid, and potassium tert–butoxide, 324–6
Nucleophilicity of phenolates in the reaction with p–nitrophenyl acetate in ethanol, 327–30
Polarography of some arylazothiohydantoin derivatives, 344–9
Pyridine nitrogen reactivity, 409–13
Nonsupported and resin–supported oligo(oxyethylenes) as solid–liquid phase–transfer catalysts. Effect of chain length and head–group, 514–17
Free energy relationships of ionization energies measured by ultraviolet photoelectron spectroscopy in substituted pyrroles, 656–9
The one–electron reduction of carbonium ions. Part 14. Effect of successive introduction of methyl substituents on the reducibility of tropylium ion in chromium(II) ion and cathodic reductions, 670–4
Electrophilic aromatic substitution. Part 28. Rate factors for protiodetritiation of all positions of hexahelicene (benzo[c]naphtho[1,2–g]phenanthrene): the reactivity of bent benzene rings, 675–83
Carbon–13 substituent chemical shifts in the side–chain carbons of aromatic systems: the importance of π–polarization in determining chemical shifts, 753–9
Configurations and conformations of the oximes, O–methyl oximes, and N–methylnitrones derived from chalcones, 860–5
The kinetics of the reactions of picryl chloride with some substituted anilines. Part 7. 2–Substituted and 2,5–disubstituted anilines, 883–5
Protiodesilylation of substituted 2–trimethylsilylthiophenes, 931–4
Photocyclization of aryl halides. Part 2. The upper excited state reactivity of 3–(2–haloanilino)–1,3–diphenylprop–2–enones: hydrogen–bonded configurational lock in photosynthesis, 1010–14
Free radical reactions in solution. Part 6. Thermal decomposition of substituted dibenzyl mercurials in solution. An improved $\sigma\cdot$ scale 1121–6
Free radical reactions in solution. Part 7. Substituent effects on free radical reactions: comparison of the $\sigma\cdot$ scale with other measures of radical stabilization, 1127–31
Electrophilic aromatic substitution. Part 29. Protiodetritiation of 4H–cyclopenta[def]phenanthrene: the substituent activation factor A_f, 1153–6
Substituent effects in infrared spectroscopy. Part 6. Meta– and para–substituted N–ammoniobenzamidates, 1206–10
Dipole moments of derivatives of 4–phenylazo–N,N–diethylaniline and of 9–phenylazojulolidine (9–phenylazo–2,3,6,7–tetrahydro–1H,5H–benzo[ij]quinolizine), 1292–4
A nondestructive reactivity index of carbohydrates. The hydroxy protonation rates in dimethyl sulfoxide, 1329–35
Ionization constants of 3–substituted propiolic acids in water, 1341–3
The kinetics and mechanism of the hydrolysis of thiol esters in aqueous solution promoted by tetrachlorogold(III) ions, 1406–10
The photochemistry of sulfoxides. A CIDNP study of carbon–sulfur bond cleavage paths, 1417–29
Gas–phase methylation of phenol and anisole by dimethylhalonium ions, 1430–6
Heterocyclic free radicals. Part 10. Phenothiazine cation radicals as probes of the inductive effect, 1492–500
The effect of salt formation on structure and charge distribution in imines. Part 4. Energy barriers to isomerization about the carbon–nitrogen bond in 2,6–dimethyl–4–aryliminopyrans and their salts: solvent and substituent effects, and evidence for isomerization mechanisms, 1501–7
Kinetics and mechanisms of the Bamberger rearrangement. Part 4. Rearrangement of sterically hindered phenylhydroxylamines to 4–aminophenols in aqueous sulfuric acid solution, 1596–8
The kinetics and mechanisms of aromatic halogen substitution. Part 35. The directive effect of the benzoyloxy substituent, 1629–32
SUBSTITUTED
Linear free energy relationships in the thiophene series. Part 2. The kinetics of the reactions of some 2–bromo–3–nitro–5–X–thiophenes with substituted anilines in methanol, 388–92
The carbon–13 nuclear magnetic resonance substituent chemical shifts of 2–substituted indenes. Interpretation by a multivariate data analysis method, 403–8
Pyridine nitrogen reactivity, 409–13
Free energy relationships of ionization energies measured by ultraviolet photoelectron spectroscopy in substituted pyrroles, 656–9
SUBSTITUTENT
The separation of polar and steric effects. Part 15. Kinetics of the reactions of benzoic acid and of ortho–substituted benzoic acids with diazodiphenylmethane in various aprotic solvents, 720–4
SUBSTITUTION
Orientation in photochemical substitution of phenyl and methyl radicals in toluene: MO calculation, 110–12
A kinetic study of the mechanisms of S_NAr reactions of neutral and cationic metal–complex haloarenes with methoxide ion, 193–200
Nucleophilic substitution at sulfonyl sulfur. Part 1. Reactivity of thiophene–2–sulfonyl halides in water and methanol–acetonitrile 221–7
Nucleophilicity of phenolates in the reaction with p–nitrophenyl acetate in ethanol, 327–30
Linear free energy relationships in the thiophene series. Part 2. The kinetics of the reactions of some 2–bromo–3–nitro–5–X–thiophenes with substituted anilines in methanol, 388–92
Thermal and photochemical reactions of organocobaloximes with diphenyl disulfide and diphenyl diselenide, 393–8
The kinetics of the reaction of phenyl 2,4,6–trinitrophenyl ether with aniline in methanol, acetonitrile, tetrahydrofuran, ethyl acetate, and benzene, 399–402
Enhanced reactivities in substitution and elimination reactions in dimethyl sulfoximide, 432–7
Electrophilic ipso–substitutions. Part 1. Reaction of 3–substituted indoles with nitronium and nitrosonium ions, 628–32
Catalysis in aromatic nucleophilic substitution. Part 5. Reactions of piperidine with methyl 2–methoxy–3–nitrothiophene–5–carboxylate and 5–acetyl–2–methoxy–3–nitrothiophene, 642–4
The polarization and charge–transfer (PCT) theoretical model for the prediction and the interpretation of the relationship between reactivity and selectivity, 645–51
Electrophilic aromatic substitution. Part 28. Rate factors for protiodetritiation of all positions of hexahelicene (benzo[c]naphtho[1,2–g]phenanthrene): the reactivity of bent benzene rings, 675–83
The stabilities of Meisenheimer complexes. Part 26. The reactions of some aromatic nitro compounds with base in tert–butyl alcohol–water mixtures, 807–11
Anion activation by the bulky perhydrotribenzo[2.2.2]cryptand in aqueous–organic two–phase systems and in low polarity media. A comparison with the anionic reactivity induced by [2.2.2,C_{14}]cryptand, 821–4
The anodic oxidation of 1,4–diaminobenzene: an electron spin resonance and electrochemical study, 825–9

SUBSTITUTION(contd)
The kinetics of the reactions of picryl chloride with some substituted anilines. Part 7. 2–Substituted and 2,5–disubstituted anilines, 883–5
Reactions of nitroanisoles. Part 2. Reactions of 2,4– and 2,6–dinitroanisole with piperidines in benzene, 995–9
Kinetics of the reactions of phenyl 2,4,6–trinitrophenyl ether with piperidine, n–butylamine, aniline, benzylamine, and morpholine in benzene, 1105–7
Electrophilic aromatic substitution. Part 29. Protiodetritiation of 4H–cyclopenta[def]phenanthrene: the substituent activation factor A_f, 1153–6
Unsymmetrically substituted furoxans. Part 6. 3–Nitro–4–phenylfuroxan: reaction with sodium methoxide and x–ray structural analysis, 1240–2
Ion–molecule reactions in the gas phase. Part 1. Stereospecific nucleophilic substitution of tertiary alcohols by ammonia, 1591–5
Selective functionalization. Part 4. Proton nuclear magnetic resonance studies of the orientation of aromatic molecules by surfactant micelles, 1616–20
SUCCINIC
Photochromic heterocyclic fulgides. Part 3. The use of (E)–α–(2,5–dimethyl–3–furylethylidene)(isopropylidene)succinic anhydride as a simple convenient chemical actinometer, 341–3
SUGAR
Radical reactions of carbohydrates. Part 2. An electron spin resonance study of the oxidation of D–glucose and related compounds with the hydroxyl radical, 1186–99
SULFATE
Solvolysis of some alkyl esters of fluorosulfuric acid in water and aqueous solvents, 940–3
An investigation of the two step nature of Sandmeyer reaction, 1459–61
SULFENAMIDE
The mechanism for interconversion of stereoisomers in N–(2,3–dihydro–2–oxobenzoxazol–3–yl)– and N–(1,2–dihydro–2–oxoquinolin–1–yl)–N–1–methylallylarenesulfenamides, 509–13
SULFIDE
Oxidation of organic sulfides by chlorine and iodosylbenzene diacetate: kinetics and mechanism, 382–7
Thermal and photochemical reactions of organocobaloximes with diphenyl disulfide and diphenyl diselenide, 393–8
Electron spin resonance studies. Part 60. Detection of radical–cations from vinyl sulfides: evidence for a cyclic structure, 1066–9
Thermal decomposition of diazodiphenylmethane catalyzed by sulfur compounds in the presence of oxygen, 1437–42
SULFINYLHYDRAZINE
Conformational studies by dynamic nuclear magnetic resonance spectroscopy. Part 21. Structure, conformation, and stereodynamics of sulfinylhydrazines, 1449–53
SULFONATE
Perchlorate esters. Part 3. Correlation of the rates of reaction of arenesulfonate ions with methyl perchlorate in acetonitrile, 49–52
SULFONATION
Photogalvanic cells. Part 14. The synthesis and characterization of disulfonated thionines, 794–800
SULFONIC
General acid inhibition and the absence of deuterium isotope exchange in base catalyzed hydrolysis of 2,4–dinitrophenyl arylmethanesulfonate esters in aqueous solution, 65–71
SULFOTHIONINE
Photogalvanic cells. Part 14. The synthesis and characterization of disulfonated thionines, 794–800
SULFOXIDE
Oxidation of organic sulfides by chlorine and iodosylbenzene diacetate: kinetics and mechanism, 382–7
The photochemistry of sulfoxides. A CIDNP study of carbon–sulfur bond cleavage paths, 1417–29
SULFOXIMIDE
Enhanced reactivities in substitution and elimination reactions in dimethyl sulfoximide, 432–7
SULFUR
The photochemistry of sulfoxides. A CIDNP study of carbon–sulfur bond cleavage paths, 1417–29
The circular dichroism of (–)–(S)–3–methylthian: a study of the electronic transitions and stereochemistry of cyclic sulfur derivatives, 1529–33
SUPPPORTED
Nonsupported and resin–supported oligo(oxyethylenes) as solid–liquid phase–transfer catalysts. Effect of chain length and head–group, 514–17
SYMMETRY
Free radical studies by resonance Raman spectroscopy: phenothiazine, 10–methylphenothiazine, and phenoxazine radical cations, 852–9
SYNTHESIS
Nonsupported and resin–supported oligo(oxyethylenes) as solid–liquid phase–transfer catalysts. Effect of chain length and head–group, 514–17
TAUTOMER
Tautomerism in a thioamide–nitroxide: solvent effects in terms of an electron spin resonance parameter for a 2–thiocarbonylimidazolidine 1–oxyl, 1089–92
TAUTOMERISM
Tautomerism in a thioamide–nitroxide: solvent effects in terms of an electron spin resonance parameter for a 2–thiocarbonylimidazolidine 1–oxyl, 1089–92
Carbon–13 and proton nuclear magnetic resonance study of solvent effects on tautomerism in 1–aryl–3–methyltriazenes, 1161–5M.
TELLER
Preparation and spectroscopic properties of pure tetrabenzoporphyrins, 1005–9
TEMP
Analysis of the dependence of acid dissociation constants on temperature, 447–56
The fluorescence of some dipolar N,N–dialkyl–4–(dichloro–1,3,5–triazinyl)anilines. Part 2. Temperature and solvent effects on the radiationless decay of an intramolecular charge–transfer excited singlet state, 918–23
The dependence on temperature of rate constants for solvolysis of alkyl halides and related compounds in water, 1157–60
Linear free energy relationships. Part 10. Synthesis, thermal, spectral, electrochemical, and hole transport (conduction) properties of some novel carbazole derivatives, 1267–73
TEREPHTHALATE
The heterogeneous thermal transformation of the yellow to the orange crystalline form of diethyl 2,5–diaminoterephthalate. X–ray crystal structures of the two forms, 1577–82
The heterogeneous thermal transformation of the orange diethyl N,N'–diphenyl–2,5–diaminoterephthalate–benzene complex to the red solvent–free compound. X–ray crystal structures of the two forms, 1583–90
TETRAAZATRICYCLOOCTANEDIONE
Mechanistic studies in the chemistry of urea. Part 10. Reaction of urea and 1,3–dimethylurea with cyclohexane–1,2–dione and of imidazolidin–2–one (ethyleneurea) with several α–diketones, 320–3
TETRABENZO
Preparation and spectroscopic properties of pure tetrabenzoporphyrins, 1005–9
TETRABENZOPORPHYRIN
Preparation and spectroscopic properties of pure tetrabenzoporphyrins, 1005–9
TETRACENE
The influence of crown ethers on the rate of intramolecular cation exchange involving the 5,12–dihydrotetracene radical anion, 1508–11
TETRACHLORIDE
Naphthalene tetrachlorides and related compounds. Part 10. The carbon–13 nuclear magnetic resonance spectra of some naphthalene tetrachlorides, 1015–20
TETRACYCLOUNDECENONE
The type A zwitterion in cyclohexadienone photochemistry: chemical trapping and stereochemistry, 736–40
TETRAFLUOROBORATE
The crystal and molecular structure of 1,2,3,5–tetramethylbenzo[b]-thiophenium tetrafluoroborate and some theoretical calculations on the hypothetical 1H–thiophenium cation, 266–9
TETRALIN
Naphthalene tetrachlorides and related compounds. Part 9. Structures and reactions of some 2–methylnaphthalene tetrachlorides, 42–8
TETRALINOL
The hydrogen–stretching absorptions and conformations of tetralin–1–ol, chroman–4–ol, thiochroman–4–ol, and indan–1–ol derivatives, 944–7
TETRAMETHYL
Aromatic C–nitroso compounds. Thermodynamics and kinetics of

TETRAMETHYL(contd)
the equilibrium between 2,6-dimethylnitrosobenzene and its trans-dimer, 256–9
The crystal and molecular structure of 1,2,3,5-tetramethylbenzo[b]-thiophenium tetrafluoroborate and some theoretical calculations on the hypothetical 1H-thiophenium cation, 266–9
Photolysis of the carbon–hydrogen bond in pentamethylcyclopentadiene. Properties of the pentamethylcyclopentadienyl radical, 692–6
Synthesis, stereochemistry, and crystal and molecular structure of 4-bromo-1,2,2,3-tetramethyl-1-phenylphosphetanium bromide, 1138–42
TETRAMETHYLAZODIOXYBENZENE
Aromatic C-nitroso compounds. Thermodynamics and kinetics of the equilibrium between 2,6-dimethylnitrosobenzene and its trans-dimer, 256–9
TETRAMETHYLBENZOTHIOPHENIUM
The crystal and molecular structure of 1,2,3,5-tetramethylbenzo[b]-thiophenium tetrafluoroborate and some theoretical calculations on the hypothetical 1H-thiophenium cation, 266–9
TETRANITRO
Diastereoisomeric charge-transfer complexes. Measurement of thermodynamic constants by proton nuclear magnetic resonance spectroscopy, 350–2
TETRANITROFLUORENYLIDENE
Diastereoisomeric charge-transfer complexes. Measurement of thermodynamic constants by proton nuclear magnetic resonance spectroscopy, 350–2
TETRANITROFLUORENYLIDENEAMINOOXYPROPIONATE
Diastereoisomeric charge-transfer complexes. Measurement of thermodynamic constants by proton nuclear magnetic resonance spectroscopy, 350–2
TETRAPHENYL
The characterization of 1,1-diphenylstannacyclopentane and 1,1,6,6-tetraphenyl-1,6-distannacyclodecane. An x-ray diffraction study of the distannacyclodecane, 369–75
TETRAPHENYLDISTANNACYCLODECANE
The characterization of 1,1-diphenylstannacyclopentane and 1,1,6,6-tetraphenyl-1,6-distannacyclodecane. An x-ray diffraction study of the distannacyclodecane, 369–75
TETRATHIAFULVALENE
The stability of the carbenes from 1,2-dithiole and 1,3-dithiole in relation to the synthesis of 1,1',3,3'- and 1,1',2,2'-tetrathiafulvalenes, 1062–5
TETRAZOLIUM
Studies on mesoionic compounds. Part 4. Protonation equilibriums of 2,3-diaryl-2H-tetrazolium-5-thiolates and 1,3,4-thiadiazolium-2-thiolates in aqueous perchloric acid solutions, 1534–7
TETRAZOLIUMTHIOLATE
Studies on mesoionic compounds. Part 4. Protonation equilibriums of 2,3-diaryl-2H-tetrazolium-5-thiolates and 1,3,4-thiadiazolium-2-thiolates in aqueous perchloric acid solutions, 1534–7
THALLIUM
Kinetics and mechanism of the reaction of substituted phenylhydrazones with thallium(III) acetate. Reactions of mercury(II) acetate with nitrogen compounds. Part 8, 1243–6
THEOR
The polarization and charge-transfer (PCT) theoretical model for the prediction and the interpretation of the relationship between reactivity and selectivity, 645–51
The stability of the carbenes from 1,2-dithiole and 1,3-dithiole in relation to the synthesis of 1,1',3,3'- and 1,1',2,2'-tetrathiafulvalenes, 1062–5
THERMODN
Aromatic C-nitroso compounds. Thermodynamics and kinetics of the equilibrium between 2,6-dimethylnitrosobenzene and its trans-dimer, 256–9
Diastereoisomeric charge-transfer complexes. Measurement of thermodynamic constants by proton nuclear magnetic resonance spectroscopy, 350–2
Enthalpies of solution of 2,2'-bipyridyl, 1,10-phenanthroline, and 1,10-phenanthroline monohydrate, 366–8
Reaction of N,N'-dimethylimidazolidine-2-thione with methyl iodide. Kinetic and thermodynamic aspects, 414–18
First thermodynamic dissociation constants of barbituric acid derivatives in water at 25°C. Part 3. 5,5-Alkylenebarbituric acid derivatives. A comparison with 5,5-dialkylbarbituric acids, and with mono- and dicarboxylic acids, 481–7
The M_C activity coefficient function for acid–base equilibriums. Part 5. The M_C activity coefficient for a reliable estimate of thermodynamic values, 1070–5
Flash photolysis study of phenyl-substituted phenols, quinones, and corresponding free radicals. Part 2. Dimerization of 2,6-diphenyl-4-methoxyphenoxyl radical in various solvents, 1234–6
Studies on mesoionic compounds. Part 4. Protonation equilibriums of 2,3-diaryl-2H-tetrazolium-5-thiolates and 1,3,4-thiadiazolium-2-thiolates in aqueous perchloric acid solutions, 1534–7
THERMOLYSIN
On the mechanism of the action of thermolysin: kinetic study of the thermolysin-catalyzed condensation reaction of N-benzyloxycarbonyl-L-aspartic acid with L-phenylalanine methyl ester, 356–60
THERMOLYSIS
Photolysis and thermolysis of 3-n-butyl-3-phenyldiazirine, 53–7
Gas-phase thermolyses. Part 5. Thermally-induced rearrangement of methyl acetate in the gas phase, 1256–9
THF
Chemical ionization mass spectra of selected C_4H_8O compounds, 1544–53
THIADIAZOLIUM
Studies on mesoionic compounds. Part 4. Protonation equilibriums of 2,3-diaryl-2H-tetrazolium-5-thiolates and 1,3,4-thiadiazolium-2-thiolates in aqueous perchloric acid solutions, 1534–7
THIADIAZOLIUMTHIOLATE
Studies on mesoionic compounds. Part 4. Protonation equilibriums of 2,3-diaryl-2H-tetrazolium-5-thiolates and 1,3,4-thiadiazolium-2-thiolates in aqueous perchloric acid solutions, 1534–7
THIAN
The circular dichroism of (-)-(S)-3-methylthian: a study of the electronic transitions and stereochemistry of cyclic sulfur derivatives, 1529–33
THIATRIMETHYLENE
The crystal structure, absolute configuration, and circular dichroism of (R)-$(-)_{546}$-8,8'-(2-thiatrimethylene)-1,1'-binaphthyl, 1621–8
THIATRIMETHYLENEBINAPHTHYL
The crystal structure, absolute configuration, and circular dichroism of (R)-$(-)_{546}$-8,8'-(2-thiatrimethylene)-1,1'-binaphthyl, 1621–8
THIAZOLINE
The structures of the products of three condensation reactions: crystal and molecular structures of 5,6-dihydrothiazolo[2,3-c][1,2,4]thiadiazol-3-one, 6β-(1-ethyl-1-hydroxypropyl)-5α-phenyl-2,3,5,6-tetrahydroimidazo[2,1-b]thiazole, and 5,5-diphenyl-2,3-dihydroimidazo[2,1-b]thiazol-6(5H)-one, 789–93
THIAZOLIUM
Mechanism of base-catalyzed hydrogen–deuterium exchange in thiazolium ion: evidence for the involvement of a tetrahedral intermediate, 1538–43
THIAZOLOTHIADIAZOLONE
The structures of the products of three condensation reactions: crystal and molecular structures of 5,6-dihydrothiazolo[2,3-c][1,2,4]thiadiazol-3-one, 6β-(1-ethyl-1-hydroxypropyl)-5α-phenyl-2,3,5,6-tetrahydroimidazo[2,1-b]thiazole, and 5,5-diphenyl-2,3-dihydroimidazo[2,1-b]thiazol-6(5H)-one, 789–93
THIENYL
Conformation and photoelectron spectra of 2-(2-furyl)pyrrole and 2-(2-thienyl)pyrrole, 127–31
THIENYLANILINE
Linear free energy relationships in the thiophene series. Part 2. The kinetics of the reactions of some 2-bromo-3-nitro-5-X-thiophenes with substituted anilines in methanol, 388–92
THIENYLPYRROLE
Conformation and photoelectron spectra of 2-(2-furyl)pyrrole and 2-(2-thienyl)pyrrole, 127–31
THIENYLSULFONYL
Nucleophilic substitution at sulfonyl sulfur. Part 2. Hydrolysis and alcoholysis of aromatic sulfonyl chlorides, 438–41
THIETANE
Gas phase thermolyses. Part 4. Gas phase thermolyses of thietane 1-oxide and 1,2-oxathiolane 2-oxide. Evidence for the intermediacy of 1,2-oxathiolane, 1166–70
THIO
Polarography of some arylazothiohydantoin derivatives, 344–9
THIOANISOLE
Protonation of alkyl aryl sulfides in antimony pentafluoride–fluorosulfonic acid solution, 62–4

THIOBENZOATE
The kinetics and mechanism of the hydrolysis of thiol esters in aqueous solution promoted by tetrachlorogold(III) ions, 1406–10
THIOHYDANTOIN
Polarography of some arylazothiohydantoin derivatives, 344–9
The structures of the products of three condensation reactions: crystal and molecular structures of 5,6-dihydrothiazolo[2,3-c][1,2,4]thiadiazol-3-one, 6β-(1-ethyl-1-hydroxypropyl)-5α-phenyl-2,3,5,6-tetrahydroimidazo[2,1-b]thiazole, and 5,5-diphenyl-2,3-dihydroimidazo[2,1-b]thiazol-6(5H)-one, 789–93
THIOL
Leaving group effects in thiolester hydrolysis. Part 2. On the possibility of an elimination–addition (keten) mediated pathway in S-acetylcoenzyme A basic hydrolysis and acetyl transfer, 171–4
Electron spin resonance studies. Part 60. Detection of radical-cations from vinyl sulfides: evidence for a cyclic structure, 1066–9
Tautomerism in a thioamide–nitroxide: solvent effects in terms of an electron spin resonance parameter for a 2-thiocarbonylimidazolidine 1-oxyl, 1089–92
The kinetics and mechanism of the hydrolysis of thiol esters in aqueous solution promoted by tetrachlorogold(III) ions, 1406–10
THIOLATE
Studies on mesoionic compounds. Part 4. Protonation equilibriums of 2,3-diaryl-2H-tetrazolium-5-thiolates and 1,3,4-thiadiazolium-2-thiolates in aqueous perchloric acid solutions, 1534–7
THIONINE
Photogalvanic cells. Part 14. The synthesis and characterization of disulfonated thionines, 794–800
THIOOXAMIDE
Conformations and barriers to inversion of seven-membered cyclic oxamides and their monothio and dithio analogs: a study by dynamic nuclear magnetic resonance spectroscopy and molecular mechanics, 1344–50
THIOPHENE
Electron spin resonance studies. Part 59. Radical reactions of thiophens: the formation and reactions of some sulfur-conjugated radical-cations, 207–18
Catalysis in aromatic nucleophilic substitution. Part 5. Reactions of piperidine with methyl 2-methoxy-3-nitrothiophene-5-carboxylate and 5-acetyl-2-methoxy-3-nitrothiophene, 642–4
Protiodesilylation of substituted 2-trimethylsilylthiophenes, 931–4
THIOPHENESULFONYL
Nucleophilic substitution at sulfonyl sulfur. Part 1. Reactivity of thiophene-2-sulfonyl halides in water and methanol–acetonitrile 221–7
THIOPHENIUM
The crystal and molecular structure of 1,2,3,5-tetramethylbenzo[b]-thiophenium tetrafluoroborate and some theoretical calculations on the hypothetical 1H-thiophenium cation, 266–9
THIOPHOSPHORANYL
Electron spin resonance studies of thiophosphoranyl radicals. The mechanism of ligand permutation in phosphoranyl radicals, 1211–20
THIOUREA
Catalysis of N-nitrosation and diazotization by thiourea and thiocyanate ion, 361–5
THIYL
Electron spin resonance studies of thiophosphoranyl radicals. The mechanism of ligand permutation in phosphoranyl radicals, 1211–20
THUJANOL
Opening of the cyclopropane ring of the thujan-3-ols in fluorosulfuric acid, 953–7
TIME
Kinetics and intermediates in the several forward and reverse reactions of nitro-substituted arenediazonium ions with hydroxide ion, 1221–9
TOLUENE
Orientation in photochemical substitution of phenyl and methyl radicals in toluene: MO calculation, 110–12
TOLUIDINIUM
Association of crown ethers with anilinium ions in methanol solution and its influence on acid–base equilibriums, 1252–5
TRANSFER
Diastereoisomeric charge-transfer complexes. Measurement of thermodynamic constants by proton nuclear magnetic resonance spectroscopy, 350–2
Enthalpies of solution of 2,2'-bipyridyl, 1,10-phenanthroline, and 1,10-phenanthroline monohydrate, 366–8
Nonsupported and resin-supported oligo(oxyethylenes) as solid–liquid phase-transfer catalysts. Effect of chain length and head-group, 514–17
The stabilities of Meisenheimer complexes. Part 25. Kinetic studies of the reaction of 1,3,5-trinitrobenzene with aliphatic amines in dimethyl sulfoxide, 533–9
Kinetic hydrogen isotope effects in intermolecular hydride transfer from arylalkanes to 9-arylfluoren-9-yl cations, 684–91
The reaction of CH_4^+, CH_3^+ and other simple carbocations with benzene in the gas phase, 838–41
The reactions of some common electrophiles, methyl, nitrosonium, nitronium and nitromethyl cations, with monosubstituted benzenes in the gas phase, 967–9
1,8-Dimorpholinonaphthalene: proton transfer reactions, 1566–71
TRANSITION
Aroyl peroxides. Part 7. The effects of additives on the thermolysis of aroyl peroxides in arenes and the elimination of possible complications in the measurement of partial rate factors for phenylation, 1109–20
Free radical reactions in solution. Part 7. Substituent effects on free radical reactions: comparison of the $\sigma\cdot$ scale with other measures of radical stabilization, 1127–31
Radical-induced hydrogen exchange in the presence of reducing transition metal ions, 1230–3
The circular dichroism of (–)-(S)-3-methylthian: a study of the electronic transitions and stereochemistry of cyclic sulfur derivatives, 1529–33
The heterogeneous thermal transformation of the yellow to the orange crystalline form of diethyl 2,5-diaminoterephthalate. X-ray crystal structures of the two forms, 1577–82
The heterogeneous thermal transformation of the orange diethyl N,N'-diphenyl-2,5-diaminoterephthalate–benzene complex to the red solvent-free compound. X-ray crystal structures of the two forms, 1583–90
TRANSPORT
Linear free energy relationships. Part 10. Synthesis, thermal, spectral, electrochemical, and hole transport (conduction) properties of some novel carbazole derivatives, 1267–73
TRAP
The relative efficiencies of a number of nitrite traps at different acidities and bromide ion concentrations, 699–702
TRAPPING
Electron spin resonance studies of spin trapping. On the role of hydroxylamines and an oxaziridine in the formation of nitroxides following addition of hydroxyalkyl radicals to N-tert-butyl-α-phenylnitrone, 379–81
TRIAZENE
Carbon-13 and proton nuclear magnetic resonance study of solvent effects on tautomerism in 1-aryl-3-methyltriazenes, 1161–5M.
TRIAZINOXYL
Organic peroxides. Part 12. The preparation and properties of some triazinyl peroxides, 1512–19
TRIAZINYL
Organic peroxides. Part 12. The preparation and properties of some triazinyl peroxides, 1512–19
TRIAZINYLANILINE
The fluorescence of some dipolar N,N-dialkyl-4-(dichloro-1,3,5-triazinyl)anilines. Part 2. Temperature and solvent effects on the radiationless decay of an intramolecular charge-transfer excited singlet state, 918–23
TRIAZOLE
Mononuclear heterocyclic rearrangements. Part 7. Evidence for general base catalysis in the rearrangement of the Z-phenylhydrazone of 3-benzoyl-5-phenyl-1,2,4-oxadiazole into 2,5-diphenyl-4-benzoylamino-1,2,3-triazole in dioxane–water, 1325–8
TRIAZOLETHIONE
Reaction of N,N'-dimethylimidazolidine-2-thione with methyl iodide. Kinetic and thermodynamic aspects, 414–18
TRICHLOROPHENYLIMINO
Crystal and molecular structure of an eight-membered cyclic imidosulfite, 2-(2,4,6-trichlorophenylimino)perhydro-1,3,2,6-dioxathiazocine, 1554–7
TRICHLOROPHENYLIMINODIOXATHIAZOCINE
Crystal and molecular structure of an eight-membered cyclic imidosulfite, 2-(2,4,6-trichlorophenylimino)perhydro-1,3,2,6-dioxathiazocine, 1554–7
TRICYCLOOCTANE
Small rings. Part 32. The gas phase kinetics, mechanism, and energy hypersurface for the thermolyses of syn- and anti-tricyclo[4.2.0.-

TRICYCLOOCTANE(contd)
$0^{2,5}$]octane, 1076–83
TRICYCLOUNDECANONE
Intramolecular [2+2] photoaddition of a 1,7–diene, 1473–80
TRIFLUOROETHYLAMINE
Kinetics of the reactions of aniline and 2,2,2–trifluoroethylamine with 1,3,5–trinitrobenzene in dimethyl sulfoxide and acetonitrile, and of 2,2,2–trifluoroethylamine with 1–fluoro– and 1–chloro–2,4–dinitrobenzenes in these solvents, 1201–5
TRIMETHYL
Substituent effects in infrared spectroscopy. Part 6. Meta– and para–substituted N–ammoniobenzamidates, 1206–10
TRIMETHYLAMMONIO
Substituent effects in infrared spectroscopy. Part 6. Meta– and para–substituted N–ammoniobenzamidates, 1206–10
TRIMETHYLAMMONIOBENZAMIDATE
Substituent effects in infrared spectroscopy. Part 6. Meta– and para–substituted N–ammoniobenzamidates, 1206–10
TRIMETHYLSILYL
Synthesis, stereochemistry, and molecular and crystal structure of exo–3–phenyl–3–phosphabicyclo[3.2.1]oct–6–ene 3–oxide, 1000–4
TRIMETHYLSILYLDIPHENYLPHOSPHINE
Synthesis, stereochemistry, and molecular and crystal structure of exo–3–phenyl–3–phosphabicyclo[3.2.1]oct–6–ene 3–oxide, 1000–4
TRINITROBENZENE
Kinetics of the reactions of aniline and 2,2,2–trifluoroethylamine with 1,3,5–trinitrobenzene in dimethyl sulfoxide and acetonitrile, and of 2,2,2–trifluoroethylamine with 1–fluoro– and 1–chloro–2,4–dinitrobenzenes in these solvents, 1201–5
TRIPYRIDINATRIOXACYCLODODECAPHANE
The crystal structures of a ketone and related acetal macrocycle containing 2,6–pyridino and polyether subunits, 877–82
TRITIOHEXAHELICENE
Electrophilic aromatic substitution. Part 28. Rate factors for protiodetritiation of all positions of hexahelicene (benzo[c]naphtho[1,2–g]phenanthrene): the reactivity of bent benzene rings, 675–83
TRITIUM
Kinetic hydrogen isotope effects in intermolecular hydride transfer from arylalkanes to 9–arylfluoren–9–yl cations, 684–91
TROPYLIUM
The one–electron reduction of carbonium ions. Part 14. Effect of successive introduction of methyl substituents on the reducibility of tropylium ion in chromium(II) ion and cathodic reductions, 670–4
TRYPTOPHAN
Conformational analysis of tryptophan in solution using nuclear magnetic resonance methods, 730–5
UNSATD
Reactions of the methylthiyl radical with unsaturated cycloalkanes: abstraction, addition, and rearrangement, 703–7
UPS
Free energy relationships of ionization energies measured by ultraviolet photoelectron spectroscopy in substituted pyrroles, 656–9
UREA
Mechanistic studies in the chemistry of urea. Part 8. Reactions of urea, 1–methylurea, and 1,3–dimethylurea with some acyloins and butane–2,3–dione (diacetyl) in acid solution, 310–16
Mechanistic studies in the chemistry of urea. Part 9. Reactions of 1,2–diaminoethane and related compounds with urea and N–alkylated ureas, 317–19
Mechanistic studies in the chemistry of urea. Part 10. Reaction of urea and 1,3–dimethylurea with cyclohexane–1,2–dione and of imidazolidin–2–one (ethyleneurea) with several α–diketones, 320–3
First thermodynamic dissociation constants of barbituric acid derivatives in water at 25°C. Part 3. 5,5–Alkylenebarbituric acid derivatives. A comparison with 5,5–dialkylbarbituric acids, and with mono– and dicarboxylic acids, 481–7
URIDINE
Intramolecular hydrogen bonding and molecular conformations of nucleosides: uridine derivatives, 82–9
URSINIA
Stereochemistry of a novel sesquiterpene lactone. X–ray determination of the structure of ursiniolide A monohydrate, 660–3
URSINIOLIDE
Stereochemistry of a novel sesquiterpene lactone. X–ray determination of the structure of ursiniolide A monohydrate, 660–3
UV
Syn–anti–photoisomerization of chelated arylhydrazones of 1,2,3–triketones: a correction, 219
Electronic spectra and electronic structures of ketenimines and carbodiimides, 270–80
The effect of salt formation on the molecular structure and charge distribution in imines: the crystal and molecular structures and the ultraviolet, infrared, and the proton and carbon–13 nuclear magnetic resonance spectra of 2,6–dimethyl–4–(p–nitrophenylimino)pyran and its hydrobromide and methobromide salts, 303–9
Free radical studies by resonance Raman spectroscopy: phenothiazine, 10–methylphenothiazine, and phenoxazine radical cations, 852–9
Configurations and conformations of the oximes, O–methyl oximes, and N–methylnitrones derived from chalcones, 860–5
Free radical reactions of the phenothiazine, metiazinic acid, 890–5
A laser flash photolysis study of tert–butoxyphosphoranyl radicals. Optical spectra and kinetics of formation, fragmentation, and rearrangement, 905–11
Ultraviolet spectra of dehydropeptides by double beam measurement, 1171–5
Kinetics and intermediates in the several forward and reverse reactions of nitro–substituted arenediazonium ions with hydroxide ion, 1221–9
Linear free energy relationships. Part 10. Synthesis, thermal, spectral, electrochemical, and hole transport (conduction) properties of some novel carbazole derivatives, 1267–73
Routes to 3–bromoflavanone from erythro–2'–hydroxychalcone dibromide: spectral and kinetic evidence for the dominating role of elimination–addition sequences via (E)– and (Z)–α–bromo–2'–hydroxychalcones, 1367–73
pH–dependent fluorescence spectroscopy. Part 12. Flavone, 7–hydroxyflavone, and 7–methoxyflavone, 1443–8
The circular dichroism of (–)–(S)–3–methylthian: a study of the electronic transitions and stereochemistry of cyclic sulfur derivatives, 1529–33
VA
Paramagnetic intermediates in the thermal reactions of benzo[2,1–b;3,4–b']dithiophene–4,5–dione with some metal(III) compounds of the heavier Group VA elements, 1274–9
VALEROPHENONE
Photolysis and thermolysis of 3–n– butyl–3–phenyldiazirine, 53–7
VANCOMYCIN
Assignment of the carbon–13 spectrum of vancomycin and its derivatives, 201–6
VINYL
An electron spin resonance study of alkyl radical addition to diethyl vinylphosphonate, 161–6
VINYLCYCLOBUTANE
Small rings. Part 32. The gas phase kinetics, mechanism, and energy hypersurface for the thermolyses of syn– and anti–tricyclo[4.2.0.-$0^{2,5}$]octane, 1076–83
VINYLCYCLOHEXENE
Small rings. Part 32. The gas phase kinetics, mechanism, and energy hypersurface for the thermolyses of syn– and anti–tricyclo[4.2.0.-$0^{2,5}$]octane, 1076–83
VINYLPHOSPHONATE
An electron spin resonance study of alkyl radical addition to diethyl vinylphosphonate, 161–6
VISCOSITY
Electrophilic aromatic substitution. Part 26. The kinetics and mechanism of nitration of some reactive benzene derivatives in aqueous phosphoric acid. The identification of steps rate–limited by nitronium ion formation and by diffusion, 848–51
Photocyclization of aryl halides. Part 2. The upper excited state reactivity of 3–(2–haloanilino)–1,3–diphenylprop–2–enones: hydrogen–bonded configurational lock in photosynthesis, 1010–14
VOL
Reaction of N,N'–dimethylimidazolidine–2–thione with methyl iodide. Kinetic and thermodynamic aspects, 414–18
VOLTAMMETRY
Electrogeneration of cyanomethyl anion from phenylsulfonylacetonitrile and cyanomethyltrimesitylphosphonium iodide and the relative acidities of XCH_2CN (X = Ph_3P^+, Ph_3As^+, Mes_3P^+, or $PhSO_2$) versus acetic acid in acetonitrile, 1093–8

WATER
A theoretical investigation of the energy and structure of ion–molecule pairs in polar solvents. Part 2. Methanediazonium cation in water, 488–93
The anodic oxidation of 1,4–diaminobenzene: an electron spin resonance and electrochemical study, 825–9
Radical–induced hydrogen exchange in the presence of reducing transition metal ions, 1230–3
WAVELENGTH
The wavelength– and solvent–dependent photochemistry of 1,1–dicyano–2–methyl–4–phenylbut–1–ene; reaction from two excited states, 774–82
WHELAND
Ipso attack in the nitration of aromatic amines. Part 1. The reactions of N,N–dimethyl–p–toluidine and some related compounds, 518–25
WILLIAMSON
Nonsupported and resin–supported oligo(oxyethylenes) as solid–liquid phase–transfer catalysts. Effect of chain length and head–group, 514–17
YLIDE
Electroorganic reactions. Part 17. The competition between cleavage and ylide formation in the cathodic reduction of benzyl–, allyl–, cinnamyl–, and polyenylphosphonium salts, 1520–3
ZIRCONOCENE
Autoxidation of alkyl compounds of zirconium and hafnium, 419–23
ZWITTERION
Free radical reactions of the phenothiazine, metiazinic acid, 890–5

JOURNAL OF THE CHEMICAL SOCIETY

The scale and cost of present day publication make it necessary to ask authors to co-operate with the Society to the full. To facilitate this the Society will publish a sequence of notices to authors within these covers. It is intended to deal with all major aspects of the preparation, submission, content, and handling of articles intended for the *Journal*. Careful attention to these notices will help authors to have their work published more easily and rapidly.

NOTICES TO AUTHORS—No. 1

General Policy

The *Journal of the Chemical Society* is a medium for reporting selected original and significant contributions to new chemical knowledge. Articles which do not advance knowledge (*e.g.* reviews) will not normally be considered for publication in the *Journal*.

All contributions are judged on the criteria of (i) originality and quality of scientific content and (ii) appropriateness of the length to content of new science. Thus, papers reporting results which would be routinely predicted or result from application of standard procedures or techniques are unlikely to prove acceptable in the absence of other attributes which themselves make publication desirable.

Although short articles are acceptable, the Society strongly discourages fragmentation of a substantial body of work into a number of short publications. Unnecessary fragmentation will be a valid reason for rejection of manuscripts.

The *Journal* is published in five Transactions: Dalton, Inorganic; Perkin I, Organic and Bio-organic; Perkin II, Physical Organic; Faraday I, Physical; Faraday II, Chemical Physics.

Authors are requested to indicate, at the time they submit a typescript, the Transactions for which it is intended. Should this seem unsuitable, the Editor will inform the author.

Conditions Governing Acceptance

Contributions which have appeared or have been accepted for publication with essentially the same content in another journal or which incorporate freely available printed work will not be published in the *Journal* except by permission of the Council. This restriction does not apply to results previously published in materially abbreviated form, as a paper presented at a symposium, as a communication to *Chemical Communications*, as a letter to the Editor of other periodicals, or as a patent.

Contributions are accepted by the Society on the understanding that the authors (*a*) have obtained any necessary authority for publication, and (*b*) will, if requested, surrender their copyright to the Society.

Authors are solely responsible for the factual accuracy of their contributions.

Since the Society reserves the right to retain all typescripts sent to it, authors are advised to keep copies. When contributions have been submitted for publication the authors are not at liberty, save by permission of the Society, to withdraw or delay them or to publish them elsewhere until after publication by the Society.*

Submission of Articles

Typescripts should be addressed to: The Manager Journals, The Royal Society of Chemistry, Burlington House, London W1V 0BN.

Three copies of the typescript (a top copy and two good quality carbon or Xerox copies) are required.

Rapid publication is aided by careful preparation of text and illustrations and strict adherence to the format and conventions of individual Transactions; detailed Instructions to Authors are available on request from the Editor.

Particular attention is drawn to the use of (i) SI units and associated conventions, (ii) I.U.P.A.C. nomenclature for compounds, and (iii) standard methods of literature citation.

Administration

Receipt of a contribution for consideration will be acknowledged immediately by the Editorial Office. The acknowledgement will indicate the paper reference number assigned to the contribution. Authors are particularly asked to quote it on all subsequent correspondence.

* Attention is drawn to the following extract from the Society's Bye-Laws:

84. (i) Every Fellow who, with a view to its publication by the Society, submits a paper or other communication shall by so doing undertake:

(*a*) that his communication has not been published and that he will not permit its publication before it is accepted or declined by the Society, and

(*b*) that if it is accepted for publication the Society shall thereupon become entitled to the copyright therein and that he will, when called on to do so, assign, insofar as he is permitted to do so, to the Society the said copyright, including the sole right to print and publish in any form, in any language, and in any part of the world, the whole or any part of his communication. The Council shall not refuse any reasonable request from any author to reproduce his own work elsewhere in whole or in part.

The attention of every Fellow who submits a paper or other communication for publication shall be drawn to this Bye-Law.

(ii) Any person other than a Fellow who submits any paper or other communication with a view to its publication shall be required to sign an undertaking in the terms set out above.

NOTICES TO AUTHORS—No. 2/1968

Presentation of Papers

Every latitude, consistent with brevity, in the form and style of papers is permitted, and no pattern for either is prescribed. Certain elements are, however, common to all papers, and these are considered.

Organization of Material

Title.—The choice of a title for a paper is of the greatest importance, since it is from the title that the important key-words used in information retrieval are taken. Not only should the title clearly and accurately indicate the content of that paper but also it should be as specific as the content and emphasis of the work permits. Brevity in a title, though desirable, should be balanced against its accuracy and usefulness.

Abbreviations, symbols, and formulae are generally not permitted, and it is usual to spell out terms where necessary.

Reference to the preceding part of a series must be made as the reference (numbered 1) to the title in the form: 'The Chemistry of Vitamin B_{12}. Part VIII.[1] Controlled Potential Reduction of Vitamin B_{12a}.' [Reference to a preceding part in the references is in the form: Part VII, H. A. O. Hill, B. E. Mann, J. M. Pratt, and R. J. P. Williams, *J. Chem. Soc.* (*A*), 1968, 564. If the page number is unknown because the paper has still to be accepted, or is in the press, the paper number should be given.]

Summary.—Every paper for the *Journal* must be accompanied by a summary (50—250 words) setting out briefly and clearly the objects and results of the work. The summary should give a reader a clear idea of what the work has achieved and should be *independent* of the main text. This last point is of particular importance in connection with the names of compounds which, although they may be accompanied by a number which refers to a displayed formula in the body of the text, must be comprehensible without reference to this formula. Thus,

> Apetalactone, a new triterpene lactone isolated from *Calophyllum apetalum* Willd. has been shown to be 4,28-dihydroxy-3,4-secofriedelan-3-oic acid lactone (IIa).
>
> or
>
> Reaction of sodium hydride with ω-hydroxyalkyltriphenylphosphonium salts $Ph_3P^+[CH_2]_nOH\ X^-$ (I) has been investigated. The salt (I; $n = 1$, X = 1) gave triphenylphosphine and formaldehyde. The salt (I; $n = 2$, X = 1) gave triphenylphosphine oxide and ethylene. Similar reactions were carried out with ω-hydroxyalkyltriphenylarsonium (XIV) and ω-hydroxyalkyldimethylphenylammonium (XV) salts.

The summary should concern only the main subject of the work and its main conclusions; details of an involved argument or synthesis should not be included and, although classes of compounds prepared or discussed should be given rather than a list of compounds, key compounds in the work should be referred to.

Introduction.—This should give clearly and briefly, with relevant references, both the nature of the problem under investigation and its background.

Results and Discussion.—It is usual for the results to be presented first, and for them to be followed by a discussion of their significance. Only relevant results should be presented, and figures, tables, and equations should be used only for purposes of clarity and brevity. Data must not be reproduced in more than one form, *e.g.* in both figures and tables.

Experimental Section.—Descriptions of experiments should be given in detail sufficient to enable experienced experimental workers to repeat them; the degree of purity of materials should be given, as should the relative quantities used. Descriptions of established procedures are unnecessary. Standard techniques and methods used throughout the work should be stated at the beginning of the section. Apparatus should be described only if it is non-standard; commercially available instruments are referred to by their stock numbers (*e.g.* Perkin-Elmer 137 or Unicam SP 500 spectrophotometers). The accuracy of primary measurements should be stated. Unexpected hazards encountered during the experimental work should be noted. The detailed treatment of the Experimental section is dealt with in a forthcoming Notice to Authors.

Acknowledgements.—Contributors, other than co-authors, are acknowledged in a separate paragraph at the end of the paper; acknowledgements should be as brief as possible. Titles, Mr., Mrs., Miss, Dr., Professor, *etc.*, are given; degrees are not given. Organizations which operate on a commercial basis are not acknowledged.

Bibliographic References.—These are given on a separate sheet at the end of the manuscript and are referred to in the text by superior roman numerals. They must be distinguished from footnotes which are given at the bottom of the page to which they refer; they are referred to by an asterisk (*), dagger (†), *etc.* Bibliographic references and footnotes are the subject of Notice No. 3.

General Detail

Type Size.—It should be noted that since the Experimental section and the results are printed in smaller type than the theoretical part, division between the two should be clear-cut and frequent alternation is not advisable.

Brevity.—Because of the large volume of work submitted for publication, brevity in the presentation of papers is essential and, for this reason, certain tendencies are discouraged; these are as follows:

(*a*) Unnecessary division of work into separate parts of a series. Papers are in no way discouraged solely on grounds of length.
(*b*) Submission of fragmentary work when this can be included in a larger communication.
(*c*) Historical introductory paragraphs in cases when a simple statement of the accepted present position suffices.
(*d*) Undue elaboration of hypotheses.
(*e*) Over-detailed and verbose exposition of ideas.
(*f*) Excessive use of diagrams, for example, straight-line plots that can be adequately expressed as an equation together with, if necessary, a table of deviations.
(*g*) Duplication of data as between text, tables, and figures, *etc.*

(*h*) Details of the preparation of simple derivatives such as esters, ethers, semicarbazones, *etc.*, and slight variations of essentially the same technique. (Unless the conditions are critical, quantities are superfluous, and only an indication of reagents and/or conditions is required.)

Spelling.—Standard English spelling is used (*Oxford English Dictionary*), although latitude with respect to alternative spellings for certain words is allowed. Where one form or the other of a particular spelling is adopted it should be used consistently throughout a paper.

Punctuation.—Although punctuation follows standard English practice, the following conventions are observed:

(*a*) A comma is placed before ' and ' or ' or ' in a series such as ' oxygen, sulphur, and selenium ' or ' $\lambda_{max.}$ 237, 295, and 343 nm.'

(*b*) Parentheses, square brackets, and braces are used, as necessary, in that order, *i.e.* {[( )]}.

(*c*) When a word is followed by a punctuation mark the parenthetical phrase must be inserted before the latter, *e.g.* ' m.p. 234° (decomp.),' and not ' m.p. 234°, (decomp.)'.

(*d*) A colon is used to separate a ratio, as in 1 : 20 —not a solidus 1/20.

(*e*) Parenthetical expressions of the same physical quantity in different units are separated by a comma (3·9 g, 0·1 mol) (30 ml, 1 mol); expressions of different physical quantities are separated by a semicolon (2·9 g; 30 ml) (*d* 0·88; 8 ml).

Hyphenation.—Hyphens are used for two purposes: to divide and to compound.

Division. It is common practice to divide words, particularly when in a sequence, when one part is common to several of the words; in such cases, the hyphen, representing the point of attachment to the common part, is always inserted, *e.g.* ' the chloro-, bromo-, and fluoro-naphthacenes,' ' the *o*-, *m*-, or *p*-nitrotoluenes,' or ' the oxo-naphthalenes and -naphthacenes.' It is not good practice, however, to detach both a common prefix and a common suffix in a series, *e.g.* ' the dihydroxy- naphthalene- and phenanthrene-diones,' since confusion can arise.

' Sections ' of class names such as diazo-ketone, alkyl-diamine, epoxy-nitro-sulphone, *etc.*, are linked by hyphens.

It is also Society usage to insert a hyphen after a prefix which ends in a vowel or y; the hydroxy-group, the aza-function, the carboxy-compounds, the nitro-derivatives, but the methyl group (note that hydroxy, acetoxy, carboxy, ethoxy, and methoxy are used and not hydroxyl, acetoxyl, carboxyl, ethoxyl, and methoxyl).

It is customary to separate a pair of the same letter when these letters (in the same fount) would not naturally fall together, *e.g.* butyl-lithium, iodo-octane.

Compounding. A hyphen is often necessary when words are compounded to form a single modifying adjective to precede the noun being modified, thus: ' a melting-point determination ' or ' a free-radical chain mechanism.' A hyphen is not needed when adverbs are compounded, as in ' an electrically heated oven,' or for two-word chemical names such as ' nitric acid solution.'

Miscellaneous uses of hyphens. Hyphens are used to set apart numbers, configurational letters, Greek letters, and italicized prefixes: 1,2,5-trimethylcyclohexane, D-*gluco*-hexose, *s*-trinitrobenzene, β-chlorophenethylbenzene, tri-μ-carbonyl-bis(tricarbonyliron), and 3-methylpent-*trans*-2-ene.

Use of Italics.—As described below, italics are indicated in a typescript by single underlining. Particular attention should be paid to the following uses.

(*a*) Foreign words and phrases and Latin abbreviations are given in italics: *e.g.*, *in toto*, *in vivo*, *ca.*, *cf.*, *i.e.*, *etc.*

(*b*) In the names of chemical compounds or radicals italics are used for prefixes (other than numerals or symbols) when they define the position of named substituents, or when they define stereoisomers: other prefixes are printed in roman. (*Note:* Initial capital letters are not to be used with italic prefixes or single-letter prefixes: full points are not to be associated with letter prefixes.)

o-, *m*-, and *p*-nitrotoluenes, but *ortho*-, *meta*-, and *para*-compounds (*o*-, *m*-, and *p*- are used only with specific names; *ortho*-, *meta*-, and *para*- are used with classes), *s*-trinitrobenzene, *NN*-dimethylaniline, *trans*- and *cis*-hexane-1,2-diol, *gem*- and *vic*-diols, benzil *anti*-oxime, 3-*O*-methyl-L-*glycero*-tetrulose.

At the beginning of a sentence the first roman letter after the prefix is capitalized: ' D-*glycero*-D-*gluco*-Heptose was subjected . . . ' and ' β-*p*-Tolylchalcone gave . . . '

(*c*) The scientific names of genera, species, and varieties are italicized.

(*d*) In references to periodicals their names or abbreviations are set in italics.

Note: Greek letters are not italicized, and should not therefore be underlined in typescripts.

Headings.—(*a*) Main sections (Experimental, Discussion, *etc.*): side-heading, small capitals, no final fullstop.

(*b*) Main side-heading: italics, initial capital letter for each noun and adjective, final fullstop and dash.

(*c*) Subsidiary side-heading: italics, first initial capital only, final fullstop but no dash.

(*d*) Further subdivision: by italic (*a*), (*b*), *etc.* (no following fullstop), and finally (i), (ii), *etc.* If (a), (b), *etc.* are used in front of a subsidiary side-heading, then for contrast these letters are not italicized.

Letters and prefixes which are ordinarily printed in italics are transferred for contrast into roman type in italicized phrases (see example below, where *O*-alkyl becomes O-*alkyl*).

Physicochemical symbols, however, remain in their prescribed form, and numerals and Greek letters are not italicized.

Examples:

EXPERIMENTAL

Preparation of Aliphatic Aldoximes and Ketoximes.—Acetoxime O-*alkyl ethers.* (*a*) Acetoxime (100 g) was dissolved . . .

Density (*d*) *of the Alcohol at* 295 K.—The series of aliphatic alcohols . . .

Note: In the above examples it should be noted that the type of print required to indicate italics, capitals, small capitals, *etc.* is shown by underlining; this convention must be strictly adhered to, *i.e.*

Single underlining for *italic* type
Double underlining for SMALL CAPITALS
Treble underlining for ORDINARY CAPITALS
Wavy underlining for **bold black** type

Bibliographic References and Footnotes

A clear distinction is made between bibliographic references and footnotes. The latter are used to present material which, if included in the body of the text, would disrupt the flow of the argument but which is, nevertheless, of importance in qualifying or amplifying the textual material. Such footnotes are referred to with the following symbols: *, †, ‡, §, ¶, ||, *etc.* [*Note:* Since an asterisk is used to indicate the author to whom correspondence should be addressed, its use early on in a paper is not advised; a dagger (†) is preferred.]

Bibliographic References.—Reference to the source of statements in the text is made by use of ***superior numerals*** at the appropriate place. The references themselves are given at the end of the final printed text. It is essential that they are numbered in the order in which they are cited in the text.

The position of the superior numeral should be chosen with care, particularly when it does not follow an author's name. If placed adjacent to punctuation, the numeral should normally be placed after the punctuation mark, *e.g.* ' This compound was shown to be the dienone,[3] which . . .'. It may be necessary to modify this rule, however, to avoid confusion, thus: ' In this way the method was found to be suitable for lead [2], tin [3], bismuth [4], and mercury [5].'

Particular care is necessary where a reference number is likely to be confused with a superscript numeral indicating a power index: ' . . . which gave a value of 2.3 cm^3 . . . ' should be written as ' . . . which gave a value [3] of 2.3 cm ' or ' . . . which gave a value of 2.3 cm (ref. 3) '.

Since it is difficult to predict the final position of a table in the text, references cited only in the table should be incorporated into the printed footnotes to the table. References which are also cited elsewhere in the text should be referred to in the footnotes by the numbers used in the text citations, *e.g.* [a] Ref. 15.

Journals. Journal titles should be abbreviated as indicated in Notice to Authors No. 4.

Books. Titles of books are cited in quotation marks, in upright letters, and the author(s), title, publisher, town, date (or edition, if more than one has been published), and page number (if required) must be given in that order:

C. J. M. Stirling, ' Radicals in Organic Chemistry,' Oldbourne Press, London, 1965, p. 69.

T. J. Suen, in ' Polymer Processes,' ed. C. E. Schildknecht, Interscience, New York, 1956, vol. X, p. 295.

Patents. Patents should be indicated in the form: B.P. 367 450, 367 455–7. U.S.P. 1 171 230. G.P. 436 112–4. Jap.P.20 101. Dates are indicated thus: B.P. 666 776/1956. Patents which are applied for must always be given a year, *e.g.* B.P. Appl. 102/1968.

Reports and Bulletins, etc.

R. A. Allen, D. B. Smith, and J. E. Hiscott, ' Radioisotope Data,' UKAEA Research Group Report AERE-R 2938, H.M.S.O., London, 1961.

' Collected Papers on Methods of Analysis for Uranium and Thorium,' Geological Survey Bulletin 1006, U.S. Government Printing Office, Washington D.C., 1954.

Material presented at meetings.

N. N. Greenwood, Abstracts, Anniversary Meeting of the Chemical Society, Glasgow, 1965, C1.

N. S. Anderson and D. A. Rees, in ' Proceedings of the Vth International Seaweed Symposium,' ed. E. G. Young and J. L. McLachlan, Pergamon Press, Oxford, 1966, p. 405.

Theses.

A. D. Mount, Ph.D. Thesis, University of London, 1967.

Reference to unpublished material. For material presented at a meeting, congress, or before a society, *etc.*, but not published, the following form is used:

[1] A. R. Jones, presented in part at the XXth Congress of the International Union of Chemistry, Paris, September, 1960.

For material accepted for publication, but not yet published, the following form is used:

[2] A. R. Jones, *J. Am. Chem. Soc.*, in the press.

If the paper has been submitted to the Society, the paper number should be given:

[3] A. R. Jones, *J. Chem. Soc., Dalton Trans.*, in the press (2/556).

For material submitted for publication but not yet accepted the following form is used:

[4] A. R. Jones, submitted for publication in *Angew. Chem.*

For personal communications the following form is used:

[5] G. B. Ball, personal communication. (*Note:* the form, G. B. Ball, private communication, is inappropriate.)

If material is to be published but has yet to be submitted the following form is used:

[6] Unpublished data.

Names.—The names and initials of all authors are always given in the reference footnote; they must not be replaced by the phrase *et al.* This does not prevent some, or all, of the names being mentioned at their first citation in the cursive text: initials are not necessary in the text.

For Chinese and Spanish authors all names should be given as in the original, since the patronymic is not always given last in these languages. If co-authors are to be collectively cited, as in ' Smith and his co-workers ' or ' Smith *et al.*,' the latter form is inappropriate unless the individual name ' Smith ' appears first among the authors named in the original.

Composite References.—Whenever possible, composite references should be used rather than a series of individual references. The style for composite references is as follows:

[1] A. B. Jones, *J. Chem. Soc., Dalton Trans.*, 1975, 234.

[2] A. B. Jones, *J. Chem. Soc., Dalton Trans.*, 1977, 123; 1978, 234.

[3] A. B. Jones, *J. Chem. Soc., Dalton Trans.*, 1977, 123; *J. Am. Chem. Soc.*, 1956, **78**, 1234.

[4] A. B. Jones, *J. Chem. Soc.*, 1956, 234; A. B. Jones and C. D. Brown, *J. Chem. Soc. B*, 1967, 234, 1077; 1968, 599.

[5] A. B. Jones, *J. Am. Chem. Soc.*, 1956, **78**, 1234; A. B. Jones and C. D. Brown, *ibid.*, 1957, **79**, 567; A. B. Jones and E. F. Green, *ibid.*, p. 999.

If only one paper from a composite reference is required for citation later, then two numbers may be assigned to the first citation (*e.g.* Jones [1,2]); alternatively, long composite references may be divided by letters, *e.g.*:

(*a*) A. B. Jones, *J. Chem. Soc., Dalton Trans.*, 1978, 467; (*b*) A. B. Jones and C. D. Brown, *J. Chem. Soc., Perkin Trans. 2*, 1979, 234.

A. B. Jones, *J. Chem. Soc. A*, (*a*) 1953, 267; (*b*) 1954, 1742; (*c*) *etc.*

A composite reference may cite a previous reference in the form:

[12] A. B. Jones, *J. Chem. Soc.*, 1956, 234; C. D. Brown, ref. 5.

(*Note: ibid.* is used only within a given reference and not to refer from one reference number to another: the abbreviated title for the journal should be repeated for separate reference numbers.)

Idem, *loc. cit.*, and *op. cit.* are not used in references.

NOTICES TO AUTHORS—No. 4/revised 1981

Journal Abbreviations

The style of journal abbreviations to be used in The Society's publications is that defined by the Chemical Abstracts Service in CASSI.* The abbreviations listed in CASSI are based upon internationally recognised systems. The following list of CASSI-style abbreviations covers most of the journals received in The Chemical Society's library. It is not, of course, a full list; CASSI (1974 edition) plus its quarterly supplements run to more than 2000 pages.

If you cannot locate an authoritative abbreviation for a journal, and if it is not obvious how the title should be abbreviated, please cite the full title.

Bibliographic details should be cited in the order: YEAR, VOLUME, PAGE.

Acc. Chem. Res.
Acta Acad. Aboensis, Ser. B
Acta Biochim. Biophys. Acad. Sci. Hung.
Acta Biochim. Iran.
Acta Biochim. Pol.
Acta Chem. Scand., Ser. A
Acta Chem. Scand., Ser. B
Acta Chim. Acad. Sci. Hung.
Acta Crystallogr.
Acta Metall.
Acta Phys. Acad. Sci. Hung.
Acta Phys. Chem.
Acta Vitaminol. Enzymol.
Adv. Act. Anal.
Adv. Alicyclic Chem.
Adv. Anal. Chem. Instrumen.
Adv. Carbohydr. Chem. Biochem.
Adv. Catal.
Adv. Chem. Phys.
Adv. Chromatogr.
Adv. Colloid Interface Sci.
Adv. Enzymol. Relat. Areas Mol. Biol.
Adv. Free-Radical Chem.
Adv. Heterocycl. Chem.
Adv. Inorg. Chem. Radiochem.
Adv. Lipid Res.
Adv. Macromol. Chem.
Adv. Magn. Reson.
Adv. Molten Salt Chem.
Adv. Organomet. Chem.
Adv. Org. Chem.
Adv. Photochem.
Adv. Phys. Org. Chem.
Adv. Protein Chem.
Adv. Quantum Chem.
Adv. Struct. Res. Diffr. Methods
Afinidad
Agric. Biol. Chem.
Agrokem. Talajtan
AIChE J.
Ambix
Am. J. Pharm.
Am. J. Sci.
An. Acad. Bras. Cienc.
Anal. Biochem.
Anal. Chem.
Anal. Chim. Acta
Anal. Lett.
Analusis
Analyst (London)
An. Bromatol.
Angew. Chem.
Angew. Chem., Int. Ed. Engl.
Angew. Makromol. Chem.
Ann. Acad. Sci. Fenn., Sect. AII, Chem.
Ann. Chim. (Paris)
Ann. Chim. (Rome)
Ann. Endocrinol.
Ann. N.Y. Acad. Sci.
Ann. Pharm. Fr.
Ann. Soc. Sci. Bruxelles
Ann. Univ. Mariae Curie-Sklodowska, Sect. AA
Annu. Rep. Anal. At. Spectrosc.
Annu. Rep. Med. Chem.
Annu. Rep. Prog. Chem., Sect. A, Phys. Inorg. Chem.
Annu. Rep. Prog. Chem., Sect. B.
Annu. Rev. Biochem.
Annu. Rev. Ind. Eng. Chem.
Annu. Rev. NMR Spectrosc.
Annu. Rev. Phys. Chem.
Appl. Spectrosc.
Arch. Pharm. Chemi, Sci. Ed.
Arch. Pharm. (Weinheim, Ger.
Arm. Khim. Zh.
Arzneim.-Forsch.
Aspects Homogeneous Catal.
At. Absorpt. Newsl.
Aust. J. Biol. Sci.
Aust. J. Chem.
Aust. J. Phys.
Azerb. Khim. Zh.

Ber. Bunsenges. Phys. Chem.
Biochem. Biophys. Res. Commun.
Biochem. Educ.
Biochemistry
Biochemistry (Engl. Transl.)
Biochem. J.
Biochem. Pharmacol.
Biochem. Prep.
Biochem. Soc. Trans.
Biochim. Biophys. Acta
Biochimie
Biofizika
Bioinorg. Chem.
Biokhimiya
Bioorg. Chem.
Bioorg. Khim.
Biopolymers
Biotechnol. Bioeng.
Bochu-Kagaku
Boll. Soc. Ital. Biol. Sper.
Bol. Soc. Quim. Peru
Br. Corros. J.
Br. J. Pharmacol.
Br. Polym. J.
Br. Polym. J.
Bul. Inst. Politeh. Iasi.
Bull. Acad. Pol. Sci., Ser. Sci. Chim.
Bull. Acad. Sci. USSR, Div. Chem. Sci.
Bull. Chem. Soc. Jpn.
Bull. Inst. Chem. Res., Kyoto Univ.
Bull. Sci., Cons. Acad. Sci. Arts RSF Yougosl., Sect. A
Bull. Soc. Chim. Belg.
Bull. Soc. Chim. Fr.
Bunseki Kagaku

Can. J. Biochem.
Can. J. Chem.
Can. J. Chem. Eng.
Can. J. Pharm. Sci.
Can. J. Phys.
Can. J. Spectrosc.
Carbohydr. Res.
Carbon
Catal. Rev.
Cellul. Chem. Technol.
Cereal Chem.
Cesk. Farm.
Chelates Anal. Chem.
Chem. Age (London)
Chem. Anal. (Warsaw)
Chem. Ber.
Chem. Br.
Chem. Can.
Chem. Chron.
Chem. Econ. Eng. Rev.
Chem. Eng. Commun.
Chem. Eng. J. (Lausanne)
Chem. Eng. (London)
Chem. Eng. News
Chem. Eng. Progr.
Chem. Eng. Progr., Monogr. Ser.
Chem. Eng. Progr., Symp. Ser.
Chem. Eng. Sci.
Chem. Erde
Chem. Heterocycl. Compd. (Engl. Transl.)
Chem. Ind. (Deutsseldorf)
Chem. Ind. Int. (Engl. Transl.)
Chem. Ind. (London)
Chem.-Ing.-Tech.
Chem. Listy
Chem. Nat. Compd. (Engl. Transl.)
Chem. N. Z.
Chem. Pharm. Bull.
Chem. Phys.
Chem. Phys. Carbon
Chem. Phys. Lett.
Chem. Phys. Lipids
Chem. Prum.
Chem. Rev.
Chemsa
Chem. Scr.
Chem. Soc. Rev.
Chem. Soc., Spec. Publ.
Chem. Stosow.
Chem. Tech. (Leipzig)
Chem. Technol.
Chem. Week
Chem. Weekbl.
Chem.-Ztg.
Chem. Zvesti
Chim. Acta Turc.
Chim. Actual.
Chimia
Chim. Ind. (Milan)
Chromatographia
Clin. Biochem.
Clin. Chem. (Winston-Salem, N. C.)
Clin. Chim. Acta
Collect. Czech. Chem. Commun.
Colloid J. USSR (Engl. Transl.)
Colloid Polym. Sci.
Combust. Flame
Commun. Fac. Sci. Univ. Ankara
Commun. R. Soc. Edinburgh, Phys. Sci.
Compost. Chem.
Coord. Chem. Rev.
Corrosion Sci.
Cosmet. Perfum.
CRC Crit. Rev. Biochem.
C.R. Hebd. Seances Acad. Sci.
Crit. Rev. Anal. Chem.
Croat. Chem. Acta
C.R. Seances Soc. Biol. Ses Fil.
Curr. Sci.

DEFAZET-Dtsch. Farben-Z.
Denki Kagaku Oyobi Kogyo Butsuri Kagaku
Dokl. Akad. Nauk Arm. SSR
Dokl. Akad. Nauk SSSR
Dokl. Bolg. Akad. Nauk
Dokl. Chem. (Engl. Transl.)
Dokl. Chem. Technol. (Engl. Transl.)
Dokl. Phys. Chem. (Engl. Transl.)
Dopo. Akad. Nauk Ukr. RSR, Ser. B
Double-Liaison
Dtsch. Lebensm. -Rundsch.
Dyn. Mass Spectrom.

Educ. Chem.
Egypt. J. Chem.
Electroanal. Chem.
Electrochim. Acta
Elektrokhimiya
Endeavour
Environ. Sci. Technol.
Erdoel Kohle, Erdgas, Petrochem, Brennst. -Chem.
Essays Biochem.
Eur. J. Biochem.
Eur. Polym. J.
Experientia

Faraday Discuss. Chem. Soc.
Faraday Symp. Chem. Soc.
FEBS Lett.
Fermentn. Spirt. Prom.
Fette, Seifen. Anstrichm.
Finn Chem. Lett.
Fiz. -Khim. Mekh. Mater.
Fiz. Met. Metalloved.
Flavour Ind.
Fluorine Chem. Rev.
Food Manuf.
Fortschr. Chem. Org. Naturst.
Fortschr. Hochpolym. -Forsch.
Fresenius Z. Anal. Chem.
Fuel

Gazz. Chim. Ital.
Gen. Cytochem. Methods
Geokhimiya
Ger. Chem. Eng. (Engl. Transl.)
Gidrokhim. Mat.
Glas. Hem. Drus., Beograd
Glass Technol.
G. Microbiol.
God. Vissh. Khimikotekhnol. Inst., Sofia
Grasas Aceites (Seville)

Helv. Chim. Acta
High Energy Chem. (Engl. Transl.)
Hist. Stud. Phys. Sci.
Hoppe-Seyler's Z. Physiol. Chem.
Hua Hsueh
Hua Hsueh Hsueh Pao
Hua Hsueh Tung Pao
Hung. J. Ind. Chem.
Hwahak Kwa Kongop Ui Chinbo

Ind. Eng. Chem., Fundam.
Ind. Eng. Chem., Process. Res. Dev.
Ind. Eng. Chem., Prod. Res. Dev.
Indian J. Agric. Chem.
Indian J. Biochem. Biophys.
Indian J. Chem., Sect. A
Indian J. Chem., Sect. B.
Indian J. Pure Appl. Phys.
Ind. Lab. (Engl. Transl.)
Inorg. Chem.
Inorg. Chim. Acta
Inorg. Mater. (Engl. Transl.)
Inorg. Nucl. Chem. Lett.
Inorg. Synth.
Int. Chem. Eng.
Int. Flavours Food Addit.
Int. J. Appl. Radiat. Isot.
Int. J. Chem. Kinet.
Int. J. Mass Spectrom. Ion Phys.
Int. J. Pept. Protein Res.
Int. J. Quantum Chem.
Int. J. Quantum Chem., Symp.
Int. J. Sulfur Chem.
Int. J. Vitam. Nutr. Res.
Intra-Sci. Chem. Rep.
Ins. Chem.
Ion Exch. Solvent Extr.
Isr. J. Chem.
Istanbul Univ. Fen Fak. Mecm., Seri C
Ital. J. Biochem.

* Chemical Abstracts Service Source Index.

Itsuu Kenkyusho Nempo
Izv. Ahad. Nauk Kaz. SSR, Ser. Khim.
Izv. Ahad. Nauk SSSR, Neorg. Mater.
Izv. Ahad. Nauk SSSR, Ser. Khim.
Izv. Ahad. Nauk Turkm. SSR, Ser. Fiz. -Tekh., Khim. Geol. Nauk
Izv. Sib. Otd. Akad. Nauk SSSR, Ser. Khim. Nauk

J. Agric. Food Chem.
J. Am. Chem. Soc.
J. Am. Leather Chem. Assoc.
J. Am. Oil Chem. Soc.
J. Anal. Chem. USSR (Engl. Transl.)
J. Appl. Chem. Biotechnol.
J. Appl. Chem. USSR (Engl. Transl.)
J. Appl. Crystallogr.
J. Appl. Polym. Sci.
J. Assoc. Off. Anal. Chem.
J. Assoc. Public Anal.
J. Biochem. (Tokyo)
J. Biol. Chem.
J. Carbohydr., Nucleosides, Nucleotides
J. Catal.
J. Chem. Educt.
J. Chem. Eng. Data
J. Chem. Inf. Comput. Sci.
J. Chem. Phys.
J. Chem. Res. (M)
J. Chem. Res. (S)
J. Chem. Soc., Chem. Commun.
J. Chem. Soc., Dalton Trans.
J. Chem. Soc., Faraday Trans. 1
J. Chem. Soc., Faraday Trans. 2
J. Chem. Soc., Perkin Trans. 1
J. Chem. Soc., Perkin Trans. 2
J. Chem. Thermodyn.
J. Chim. Phys. Phys. Chim. Biol.
J. Chin. Chem. Soc. (Taipei)
J. Chromatogr.
J. Chromatogr. Sci.
J. Colloid Interface Sci.
J. Coord. Chem.
J. Cryst. Mol. Struct.
J. Doc.
J. Electroanal. Chem. Interfacial Electrochem.
J. Electrochem. Soc.
J. Electrochem. Soc. India
J. Fac. Sci. Univ. Tokyo
J. Fluorine Chem.
J. Food Sci.
J. Franklin Inst.
J. Gen. Chem. USSR (Engl. Transl.
J. Hazard. Mater.
J. Heterocycl. Chem.
J. Histochem. Cytochem.
J. Indian Chem. Soc.
J. Indian Inst. Sci.
J. Inorg. Nucl. Chem.
J. Inst. Brewing, London
J. Inst. Chem., Calcutta
J. Inst. Fuel
J. Labelled Comp. Radiopharm.
J. Less-Common Met.
J. Lipid Res.
J. Liq. Chromatogr.
J. Lumin.
J. Macromol. Sci., Chem.
J. Macromol. Sci., Phys.
J. Magn. Reson.
J. Med. Chem.
J. Mol. Biol.
J. Mol. Catal.
J. Mol. Spectrosc.
J. Mol. Struct.
J. Neurochem.
J. Nonmet. Semiconduct.
J. Oil Colour Chem. Assoc.
J. Organomet. Chem.
J. Org. Chem.
J. Org. Chem. USSR (Engl. Transl.)
J. Pharmacol.
J. Pharmacol. Exp. Ther.
J. Pharm. Pharmacol.
J. Pharm. Sci.
J. Photochem.
J. Phys. Chem.
J. Phys. Chem. Ref. Data
J. Phys. Chem. Solids
J. Phys. E
J. Polym. Sci., Macromol. Rev.
J. Polym. Sci., Polym. Chem. Ed.
J. Polym. Sci., Polym. Phys. Ed.
J. Polym. Sci., Polym. Symp.

J. Prakt. Chem.
J. Quant. Spectrosc. Radiat. Transfer
J. Radioanal. Chem.
J. Raman Spectrosc.
J. Res. Inst. Catal., Hokkaido Univ.
J. Res. Nat. Bur. Stand., Sect. A
J. Sci. Food Agric.
J. Sci. Hiroshima Univ., Ser. AII, Phys., Chem.
J. Sci. Ind. Res.
J. Soc. Dyers Colour.
J. Soc. Leather Technol. Chem.
J. Solid State Chem.
J. Solution Chem.
J. Steroid Biochem.
J. Struct. Chem. (Engl. Transl.)
J. Text. Inst.
J. Therm. Anal.
Justus Liebigs Ann. Chem.

Kagaku Kogaku
Kanazawa Daigaku Yakugakubu Kenkyu Nempo
Kem. -Kemi
Kem. Tidskr.
Khim. Geterotsikl. Soedin.
Khim. Ind. (Sofia)
Khim. Neft. Mashinostr.
Khim. Prir. Soedin.
Khim. Prom. (Moscow)
Khim. Volokna
Khim. Vys. Energ.
Kinet. Catal. (Engl. Transl.)
Kinet. Katal.
Kjemi
Kobunshi Kagaku
Kogyo Kagaku Zasshi
Kolloidn. Zh.
Koord. Khim.
Kristallografiya
Kunstst. -Plast. (Solothurn, Switz.)

Lab. Pract.
Latv. PSR Zinat. Vestis, Kim. Ser.
Lipids

Macromolecules
Macromol. Synth.
Magy. Kem. Foly.
Magy. Kem. Lapja
Makromol. Chem.
Manuf. Chem. Aerosol News
Meded. Vlaam. Chem. Ver.
Mekh. Polim.
Mem. Fac. Sci. Kyushu Univ., Ser. C
Mem. Inst. Protein Res., Osaka Univ.
Mem. Inst. Sci. Ind. Res., Osaka Univ.
Mendeleev Chem. J. (Engl. Transl.)
Methods Biochem. Anal.
Methods Free-Radical Chem.
Microchem. J.
Mikrochim. Acta
Mol. Cell. Biochem.
Mol. Cryst. Liq. Cryst.
Mol. Phys.
Monatsh. Chem.

Nahrung
Nature (London)
Naturwissenschaften
Neftekhimiya
Nippon Kagaku Kaishi
Nippon Nogei Kagaku Kaishi
Nouv. J. Chim.

Oesterr. Chem. -Ztg.
Online (Weston, Conn.)
Orbital
Org. Magn. Reson.
Org. Mass Spectrom.
Org. Prep. Proced. Int.
Org. React.
Org. React. (USSR)
Org. React. Mech.
Org. Synth.

Paint Manuf.
Pak. J. Sci.
Pak. J. Sci. Ind. Res.
Pak. J. Sci. Res.
Periodia Polytech., Chem. Eng.
Pestic. Sci.
Philos. Mag.
Philos. Trans. R. Soc. London, Ser. A
Phosphorus Sulfur
Photochem. Photobiol.
Phys. Chem. Glasses
Phys. Rev.
Phys. Rev. Lett.
Phys. Scr.
Phytochemistry
Pigm. Resin Technol.
Pis'ma Zh. Eksp. Teor. Fiz.
Plast. Polym.
Pol. J. Chem.
Polym. Age
Polymer
Polym. Sci. USSR (Engl. Transl.)
Postepy Biochem.
Prikl. Biokhim. Mikrobiol.
Priroda (Moscow)
Proc. Am. Soc. Brew. Chem.
Proc. Anal. Div. Chem. Soc.
Process Biochem.
Processing
Proc. Indian Acad. Sci., Sect. A
Proc. Indian Acad. Sci., Sect. B
Proc., K. Ned. Akad. Wet., Ser B
Proc., K. Ned. Akad. Wet., Ser C
Proc. Natl. Acad. Sci., India, Sect. A
Proc. Natl. Acad. Sci. USA
Proc. R. Soc. Edinburgh, Ser. A
Proc. R. Soc. London, Ser. A
Proc. R. Soc. London, Ser. B
Proc. Soc. Exp. Biol. Med.
Prog. Bioorg. Chem.
Prog. Colloid Polym. Sci.
Prog. Inorg. Chem.
Prog. Med. Chem.
Prog. Nucleic Acid Res. Mol. Biol.
Prog. Nucl. Magn. Reson. Spectrosc.
Prog. Phys. Org. Chem.
Prog. React. Kinet.
Prog. Solid State Chem.
Prog. Stereochem.
Prog. Surf. Membr. Sci.
Prog. Surf. Sci.
Prog. Thin-Layer Chromatogr. Relat. Methods
Przem. Chem.
Pure Appl. Chem.
Pyrethrum Post

Quad. Ing. Chim. Ital.
Quim. Nova

Radiat. Phys. Chem.
Radiat. Res.
Radiochim. Acta
Radiokhimiya
React. Kinet. Catal. Lett.
Recent Dev. Chem. Nat. Carbon Compd.
Recent Prog. Horm. Res.
Recherches
Reci Trav. Chim. Pays-Bas
Rend. Accad. Sci. Fis. Mat., Naples
Rep. Prog. Appl. Chem.
Residue Rev.
Rev. Anal. Chem.
Rev. Asoc. Bioquim. Argent.
Rev. Chim. (Bucharest)
Rev. Phys. Chem. Jpn.
Rev. Port. Quim.
Rev. Roum. Biochim.
Rev. Roum. Chim.
Rev. Sci. Instrum.
Rev. Soc. Quim. Mex.
Ric. Sci.
Rubber Chem. Technol.
Russ. Chem. Rev. (Engl. Transl.)
Russ. J. Inorg. Chem. (Engl. Transl.)
Russ. J. Phys. Chem. (Engl. Transl.)

S. Afr. J. Chem.
Sankyo Kenkyusho Nempo
Sb. Ved. Pr., Vys. Sk. Chemickotechnol., Pardubice
Sch. Sci. Rev.
Schweiz. Apoth. -Ztg.
Sci. Cult.
Science
Sci. Pap. Coll. Gen. Educ., Univ. Tokyo
Sci. Pap. Inst. Phys. Chem. Res. (Jpn.)
Sci. Rep. Res. Inst., Tohoku Univ.
Sci. Rep. Tohoku Univ., Ser. 1
Sci. Sinica
Sel. Annu. Rev. Anal. Sci.
Semicond. Insul
Sep. Purif. Methods
Sep. Sci. Technol.
Soap. Cosmet., Chem. Spec.
Sov. Electrochem. (Engl. Transl.)
Sov. J. Bioorg. Chem. (Engl. Transl.)
Sov. J. Coord. Chem. (Engl. Transl.)
Sov. Phys. -Crystallogr. (Engl. Transl.)
Sov. Radiochem. (Engl. Transl.)
Spectrochim. Acta, Part A
Spectrochim. Acta, Part B
Spectrosc. Lett.
Steroids
Steroids Lipids Res.
Struct. Bonding (Berlin)
Stud. Univ. Babes-Bolyai, Ser. Chem.
Sub-Cell. Biochem.
Surf. Colloid Sci.
Surf. Sci.
Synth. Commun.
Synthesis
Synth. Proced. Nucleic Acid Chem.
Synth. React. Inorg. Metal-Org. Chem.

Taehan Hwahak Hoechi
Talanta
Technol. Rep. Osaka Univ.
Teor. Eksp. Khim.
Teor. Osn. Khim. Tekhnol.
Tetrahedron
Tetrahedron Lett.
Text. Inst. Ind.
Text. Res. J.
Theor. Exp. Chem. (Engl. Transl.
Thermochim. Acta
Tin Its Uses
Tokyo Kogyo Shikensho Hokoku
Top. Curr. Chem.
Top. Stereochem.
Trans. Inst. Chem. Eng.
Trans. Inst. Met. Finish.
Transition Met. Chem.
Trans. J. Br. Ceram. Soc.
Trends Biochem. Sci.
Tr. Inst. Elektrokhim., Ural. Nauchn. Tsentr. Akad. Nauk SSSR

Ukr. Biokhim. Zh.
Ukr. Khim. Zh. (Russ. Ed.)
Usp. Khim.
UV Spectrom. Group Bull.
Uzb. Khim. Zh.

Vestn. Leningr. Univ., Fiz., Khim.
Vestn. Mosk. Univ., Khim.
Vestn. Slov. Kem. Drus.
Vestsi Akad. Navuk B, SSR. Ser. Khim. Navuk
Veszpremi Vegyip, Egy. Kozl.
Vitam. Horm. (N.Y.)
Vopr. Med. Khim.
Vysokomol. Soedin., Ser. A
Vysokomol. Soedin., Ser. B

Xenobiotica

Yakugaku Zasshi
Yuki Gosei Kagaku Kyohai Sh

Z. Anorg. Allg. Chem.
Zavod. Lab.
Zb. Pr. Chemickotechnol. Fac. SVST
Z. Chem.
Zentralbl. Pharm., Pharmakother. Laboratoriumsdiagn.
Zh. Anal. Khim.
Zh. Eksp. Teor. Fiz.
Zh. Evol. Biokhim. Fiziol.
Zh. Fiz. Khim.
Zh. Nauchn. Prikl. Fotogr. Kinematogr.
Zh. Neorg. Khim.
Zh. Obshch. Khim.
Zh. Org. Khim.
Zh. Prikl. Khim.
Zh. Prikl. Spektrosk.
Zh. Strukt. Khim.
Zh. Vses. Khim. Ova.
Z. Kristallogr., Kristallgeom., Kristallphys., Kristallchem.
Z. Lebensm. -Unters. Forsch.
Z. Naturforsch., Teil A
Z. Naturforsch., Teil B
Z. Naturforsch., Teil C
Z. Phys. Chem. (Frankfurt am Main)
Z. Phys. Chem. (Leipzig)
Z. Vitam., Horm., Fermentforsch.
Z. Wiss. Photogr., Photophys., Photochem.

NOTICES TO AUTHORS—No. 5/1969 (revised 1981)

The International System of Units (SI)

Preamble

For many years the practice of The Society in respect of units has been based on the recommendations of a joint Committee of The Royal Society, The Chemical Society, The Faraday Society, and The Physical Society. The 1951 set of recommendations published by that Committee formed the basis of Chapter 7 of the 'Handbook for Chemical Society Authors' but since their promulgation much effort has been expended in international circles to devise and approve a basic set of coherent units. This having been complete, The Joint Symbols Committee of The Royal Society, of which The Royal Society of Chemistry is a participating member, has produced a set of recommendations in a pamphlet 'Symbols, Signs and Abbreviations' 1975 (copies of this pamphlet or further details can be obtained from the Manager, Journals, The Royal Society of Chemistry, Burlington House, London, W1V OBN). The basis of the recommendations is the 'Système International d'Unités' (to be abbreviated to SI, in all languages).

The advantages offered by SI are as follows.

(i) It is a truly coherent system, *i.e.* the product or quotient of any two unit quantities in the system is the unit of the resultant quantity. This contrasts with the previous situation where, even in metric systems used within the same discipline, many additional units are arbitrarily and sometimes differently defined.

(ii) SI derives nearly all the quantities needed in all sciences and technologies from a very small set of base-units.

(iii) The variety of multiples and sub-multiples in common use is minimized.

(iv) A more uniform presentation can be ensured.

(v) Presentation is such that the relation of any derived unit, or multiple or sub-multiple of a derived unit, to the coherent unit is always obvious and simple.

Policy

(1) The Society announces its approval and support of SI; SI is the preferred system in its publications.

(2) *Guidelines for the publications of the Society.* An author will not be denied any reasonable usage, but if non-SI units are used for critical data or for quantities measured to a high order of accuracy (as opposed to the rough physical conditions of an experiment), the definitive values will be expressed in SI units as well.

The following will be the guidelines used:

(*a*) A metric system will always be used in preference to a non-metric one.

(*b*) SI will be the standard usage.

(*c*) The units used to record the *definitive* values of 'critical data' or quanitities measured to high degree of accuracy will be SI.

(*d*) When non-SI units are used they must be adequately explained unless their definition is obvious (*e.g.* degree Celsius, mmHg, g, h). The derivation of derived non-SI units will be indicated.

(*e*) Equations involving electrical quanitities should normally be those appropriate for use with SI (rationalized m.k.s.) units. If authors wish to use equations suitable for e.s.u. or e.m.u. the lack of consistency with SI units must be explicitly noted.

(3) *The principal changes.* There are four of these:

(*a*) Basic units: the metre and the kilogramme replace the centimetre and the gramme of the old metric system.

(*b*) The unit of force is now the newton (kg m s^{-2}).

(*c*) The unit of energy is the joule and of power the joule per second (watt); thus the variously defined calories and non-metric units of energy and power are superseded.

(*d*) 'Electrostatic' and 'electromagnetic' units are replaced by SI electrical units.

Detail

(4) *Definition.* A quantity is expressed as the product of a numerical value and a unit.

(5) *The System.* The fully coherent SI consists of base-units, supplementary units, derived units, and decimal multiples and sub-multiples of these units, formed by use of prefixes only.

(6) *Coherent systems.* A coherent system is one based on a selected set of 'base-units' from which 'derived units' are obtained by multiplication without introducing numerical factors.

(7) *Base-units.* The name International System of Units (SI) was adopted by the Conférence Générale de Poids et Mesures in 1960 for the coherent system now based on the base-units given in Table 1.

TABLE 1

Physical quantity	*Name of base-unit*	*Symbol for unit*
length	metre	m
mass	kilogramme	kg
time	second	s
electrical current	ampere	A
thermodynamic temperature	kelvin	K
luminous intensity	candela	cd
amount of substance	mole	mol

(8) *Supplementary units.* The SI also includes two 'supplementary' *dimensionless* units as follows:

Physical quantity	*Name of unit*	*Symbol for unit*
plane angle	radian	rad
solid angle	steradian	sr

(9) *Multiples and sub-multiples.* In the SI there is one and only one basic unit for each physical quantity. Decimal fractions and multiples of these basic units may, however, be constructed by use of certain prefixes (see Table 2). They may also be used with derived SI units.

TABLE 2

Fraction	*Prefix*	*Symbol*	*Multiple*	*Prefix*	*Symbol*
10^{-1}	deci	d	10	deka	da
10^{-2}	centi	c	10^{2}	hecto	h
10^{-3}	milli	m	10^{3}	kilo	k
10^{-6}	micro	μ	10^{6}	mega	M
10^{-9}	nano	n	10^{9}	giga	G
10^{-12}	pico	p	10^{12}	tera	T
10^{-15}	femto	f			
10^{-18}	atto	a			

The combination of a prefix and a unit symbol constitutes a new single unit symbol; compounding of prefixes is not permitted.

Although it will not always be possible, particularly in Tables, the general principle should be to choose a unit (*i.e.* including multiple or sub-multiple) such that the resulting numerical value is between 0·1 and 1000.

(10) *Derived units.* Some derived units have special names and symbols, and these are given in Table 3.

TABLE 3

Physical quantity	*Name of SI unit*	*Symbol for SI unit*	*Definition of SI unit*
energy	joule	J	$kg\ m^{2}s^{-2}$
force	newton	N	$kg\ m\ s^{-2} = J\ m^{-1}$
power	watt	W	$kg\ m^{2}s^{-3} = J\ s^{-1}$
electric charge	coulomb	C	A s
electric potential difference	volt	V	$kg\ m^{2}s^{-3}A^{-1} = JA^{-1}s^{-1}$
electric resistance	ohm	Ω	$kg\ m^{2}s^{-3}A^{-2} = VA^{-1}$
electric capacitance	farad	F	$A^{2}s^{4}kg^{-1}m^{-2} = As\ V^{-1}$
magnetic flux	weber	Wb	$kg\ m^{2}s^{-2}A^{-1} = V\ s$
inductance	henry	H	$kg\ m^{2}s^{-2}A^{-2} = VA^{-1}\ s$
magnetic flux density	tesla	T	$kg\ s^{-2}A^{-1} = V\ s\ m^{-2}$
luminous flux	lumen	lm	cd sr
illumination	lux	lx	$cd\ sr\ m^{-2}$
frequency	hertz	Hz	s^{-1}

Others do not

Physical quantity	*SI unit*	*Symbol for SI unit*
area	square metre	m^{2}
volume	cubic metre	m^{3}
density	kilogramme per cubic metre	$kg\ m^{-3}$
velocity	metre per second	$m\ s^{-1}$
angular velocity	radian per second	$rad\ s^{-1}$
acceleration	metre per second squared	$m\ s^{-2}$
pressure	newton per square metre	$N\ m^{-2}$
kinematic viscosity, diffusion coefficient	square metre per second	$m^{2}s^{-1}$
dynamic viscosity	newton second per square metre	$N\ s\ m^{-2}$
electric field strength	volt per metre	Vm^{-1}
magnetic field strength	ampere per metre	$A\ m^{-1}$
luminance	candela per square metre	$cd\ m^{-2}$

(11) *Symbol.* The symbol for a unit will be printed in roman (upright) type, remains unaltered in the plural and does *not* take a full point, *i.e.* 5 cm not 5 cm. or 5 cms or 5 cms.

The symbol will be separated from the numerical value by a thin space.

(12) *Decimal fractions and multiples of SI units having special names.* These names are not part of the SI, but for the time being their use in The Society's publications may continue. The list given in Table 4 is not exhaustive.

TABLE 4

Physical quantity	*Name of unit*	*Symbol unit*	*Definition of unit*
length	ångström	Å	$10^{-10}\ m = 10^{-1}\ nm$
length	micron	μm	$10^{-6}\ m$
area	barn	b	$10^{-28}\ m^{2}$
volume	litre	l	$10^{-3}\ m^{3} = dm^{3}$
mass	tonne	t	$10^{3}\ kg = Mg$
force	dyne	dyn	$10^{-5}\ N$
pressure	bar	bar	$10^{5}\ N\ m^{-2}$
pressure	pascal	Pa	Nm^{-2}
energy	erg	erg	$10^{-7}\ J$
kinematic viscosity diffusion coefficient	stokes	St	$10^{-4}\ m^{2}s^{-1}$
dynamic viscosity	poise	P	$10^{-1}\ kg\ m^{-1}s^{-1}$
magnetic flux	maxwell	Mx	$10^{-8}\ Wb$
magnetic flux density (magnetic induction)	gauss	G	$10^{-4}\ T$
conductance	siemens	S	Ω^{-1}

(13) *Units defined in terms of the best available experimental values of certain physical constants.* These units are not part of the SI. The factors for conversion of these units to SI units are subject to change in the light of new experimental measurements of the constants involved. Their use outside the restricted contexts to which they are appropriate should be discouraged. The following list is not exhaustive.

Physical quantity	*Name of unit*	*Symbol for unit*	*Conversion factor*
energy	electronvolt	eV	$eV \approx 1{\cdot}6021 \times 10^{-19}\ J$
mass	unified atomic mass unit	u	$u \approx 1{\cdot}660\,41 \times 10^{-27}\ kg$

(14) *Other units now exactly defined in terms of the SI units.* These units are not part of the SI. It is recognized that their use may be continued for some time but it is recommended that except in special circumstances they should be progressively abandoned in conformity with international recommendations. The list given in Table 5 is by no means exhaustive. Each of the definitions given in the fourth column is *exact*.

TABLE 5

Physical quantity	*Name of unit*	*Symbol for unit*	*Definition of unit*
length	inch	in	$2{\cdot}54 \times 10^{-2}\ m$
mass	pound (avoirdupois)	lb	0·453 592 37 kg
time *	minute	min	60 s
time *	hour	h	3600 s
force	kilogramme-force	kgf	9·806 65 N
force	pound-force	lbf	$9{\cdot}806\,65 \times 0{\cdot}453\,592\,37\ N$
pressure	atmosphere	atm	$101\,325\ N\ m^{-2}$
pressure	conventional millimetre of mercury	mmHg	$13{\cdot}5951 \times 9{\cdot}806\,65\ N\ m^{-2}$
pressure	torr	Torr	$(101\,325/760)\ N\ m^{-2}$
pressure	pound-force per square inch	$lbf\ in^{-2}$	$\frac{9{\cdot}806\,65 \times 4535{\cdot}9237}{6{\cdot}4516}\ N\ m^{-2}$
energy	kilowatt hour	kW h	$3{\cdot}6 \times 10^{6}\ J$
energy	thermochemical calorie	cal(thermochem.)	4·184 J
energy	I.T. calorie	cal_{IT}	4·1868 J
thermodynamic temperature	degree Rankine	°R	(5/9) K
radioactivity	curie	Ci	$3{\cdot}7 \times 10^{10}\ s^{-1}$

* Use of other common units (min, h, day) may continue in normal expressions of intervals of time.

Formulae and Figures

The purpose of all illustrative matter in a paper is to clarify the arguments and descriptions rather than to duplicate them. The Society strongly encourages the use of displayed formulae, particularly in the form of schemes where the details of a reaction sequence are often more easily understood when illustrated than when described in the text.

All formulae and figures should be clearly drawn, and in the case of figures provided with captions; the latter should be typed on a separate sheet. Since all formulae carry a key number by which they are identified, unless they form part of the running text or unless they are part of a scheme which itself has a caption, they are not generally further described. Blocks of formulae do not need a caption.

Illustrative matter is divided, for technical reasons, into figures and formulae, although in many cases (*e.g.* crystal structures which may be regarded as formulae but which are treated as figures) these divisions overlap.

Structural Formulae.—(*a*) Only those formulae which are displayed may be given key numbers. In all other cases the compounds concerned are referred to by name only.

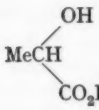
(*b*) Formulae are numbered sequentially with bold arabic numerals in parentheses [(**1**), (**2**), and (**3**) *etc.*] as they are displayed and *not* as they are mentioned in the text.

(*c*) In complex reaction schemes the formulae should be numbered serially following the reaction sequence. Non-sequential numbering in a collection of formulae can render it hard to locate an individual number.

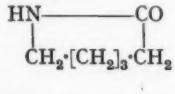
(*d*) Structural or displayed formulae must be carefully and accurately drawn or typed on a separate sheet, rather than inserted into the text, although a marginal indication of where they are to go in the text is desirable.

(*e*) Formulae inserted into the body of the text (as distinct from those displayed separately) should be written on one line if possible, *e.g.*

$HO{\cdot}CHMe{\cdot}CO_2H$ and $\overline{NH{\cdot}[CH_2]_5{\cdot}CO}$ rather than



and



(*f*) Points (which may be typed as full stops) are used to indicate bonds between the atoms of the backbone chain of a compound. The symbol of each element of that chain is preceded by a full stop (or colon for a double bond) and followed by the symbols or formulae of the atoms or groups that are attached to it (parentheses being used where necessary to enclose compound groups), *e.g.* *o*-$HO{\cdot}C_6H_4{\cdot}CH_2{\cdot}NH_2$ and $CH_2Cl{\cdot}CH(OH){\cdot}CO_2H$.

Groups that are indicated by a single symbol (*e.g.* Me and Et *etc.*) do not need use of such full stops.

Repeating sequences of a backbone composite group are enclosed with square brackets and their number is indicated by an inferior multiplier, *e.g.* $HO{\cdot}[CH_2]_4{\cdot}NH_2$, but $HO{\cdot}[CH_2]_4{\cdot}N(CH_2{\cdot}OH)_2$.

(*g*) The use of large circles to represent six delocalized π-electrons in cyclic systems (with or without positive or negative signs as appropriate) is permitted in certain circumstances. Cyclic systems with more or less than six delocalized π-electrons may be represented by formulae containing dotted lines. Both topics are dealt with in *Proceedings*, 1959, 75.

(*h*) Customary steric conventions must be observed, notably for steroids, triterpenes, and carbohydrates. The Society uses wedges (◢) or heavy lines (—) rather than blocked circles (●) and broken lines in the form – – – – – rather than ···||||.

(*i*) The symbols Me, Et, Pr^n, Pr^i, Bu^n, Bu^i, Bu^s, Bu^t, Ph, Ac, Bz (the symbol for PhCO and not for $PhCH_2$), Alk, Ar, and Hal, should be used but may be written in full when the groups are involved in the reaction described. Other special symbols, if used, require an explanatory footnote. The carboxy-group is written CO_2H (*not* COOH) and similarly CO_2R.

(*j*) One variable univalent substituent is indicated by R; when more than one independently variable general substituent is present, R^1, R^2, and R^3 should be used (*not* R, R^1, R^2, R^3; or R_1, R_2, and R_3 which indicate 1 × R and multiples of R thereof).

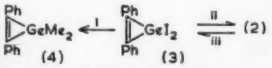
(*k*) Often it is desirable to use one formula to represent a number of related compounds (or classes of compounds) by the use of one or more independently variable substituents. It is preferable to give each compound thus represented a separate key number rather than to subdivide individual key numbers by alphabetical suffixes [*i.e.* (**1**a), (**1**b), (**1**c) *etc.*].

(**1**) $R^1 = R^3 = Ph$, $R^2 = Me$, X = O
(**2**) $R^1 = Me$, $R^2 = R^3 = Ph$, X = S

(**3**) $R^1 = Me$, $R^2 = Ph$, $R^3 = Bz$
(**4**) $R^1R^2 = CO{\cdot}O{\cdot}CO$, $R^3 = Ph$

The use of more than four independently variable substituents or atoms on one generalized formula is discouraged.

(*l*) Once a formula has been displayed it is permissible to employ its key number in later reaction schemes or equations rather than to re-display the formula:



Reagents: i, MeMgI; ii, NaOH; iii, HI

It should be noted that reagents and reaction conditions are given as footnotes to the scheme for economy of space; if present, an equation number is set as far to the right as possible, and if there is likelihood of

confusion with compound key-numbers it is accompanied by the word equation.

(*m*) Displayed formulae, unless they are capable of being typed on one line [see point (*e*) above], should not be included in tables; they should be displayed before the table with a key number for each compound and this should be used in the table.

(*n*) The key number for a compound may be used in the cursive text to avoid repetition of long chemical names; this device must not be used to excess. In general it is preferred if the key number is qualified by a partial name for the compound as in the following example:

'Pyolin (**1**) was oxidized by permanganate to the oxo-acid (**2**), the methyl ester (**3**) of which with methylmagnesium iodide gave the normal product (**4**)'.

(*o*) Reference to compounds in the Summary by key number alone is not allowed since a summary should be comprehensible without reference to the body of the paper itself. The reference number should, however, accompany the name of the compound to which it refers.

Figures.—(*a*) Figures must bear on the back the names of the authors, the title of the paper (abbreviated if necessary), and the number of the figure.

(*b*) Figures must be in Indian ink, on Bristol board, white smooth cartridge paper, tracing linen, plastic film (it is essential that the special plastic ink developed for this is used), or graph paper with *faint* blue lines (red or brown lines must not be present as these may be reproduced by the photographic process of block making). Since lines must be black and sharp, photostats or similar prints are often not suitable. If paper is used, it must be strong enough to withstand repeated handling.

(*c*) Lettering and numerals must be in *blue pencil* (*not* red or black pencil or ink) clearly legible but not so heavily scored as to make a permanent impression on the paper or board.

(*d*) When the figures are large (more than 8 in × 10 in), smaller copies (which may be rough, as long as they are clear) should be supplied for submission to the referees; editing will not be undertaken, however, before the final figures are received.

(*e*) Figures must be carefully drawn, preferably three times the size (linear) that seems necessary to ensure sharp printing, but excessive reduction is costly and illustrations that exceed five times the size of the finished block may be returned to the author for redrawing.

(*f*) Two-inch margins are essential all round figures. Lettering for insertion at margins should be placed well clear of the ordinate or abscissa line so that it can be copied before erasure.

Lettering and touching-up are done by the Society and clarity of instructions is essential. When there is much lettering, or complicated lettering, and always when tracing linen or plastic film is used, a rough tracing should be added with the lettering shown in ink.

(*g*) Since, for printing, the size is reduced, lines should not be too thin. Given lines must be of even thickness, angles neat, and curves smooth.

(*h*) Graphs should have only the requisite minimum of the scale (not less than three points) marked by numerals, and the scale lines should not normally be continued into the body of the figure.

(*i*) Graphs in any one paper should, when convenient, be drawn to the same scale, and scale markings should, when possible, be identical so that the graphs may be placed adjacent on the page. Contrariwise, two curves drawn to different scales can be shown on one graph by having the appropriate scales on the left-hand and the right-hand side. The use of both right- and left-hand axes and top and bottom axes on figures which have quantitative significance is encouraged.

(*j*) Experimental points must be shown sufficiently large to be distinguishable when reduced in size. Whenever possible, they should be confined to open and closed circles, crosses, squares, and triangles. Partly black circles and similar signs frequently become indistinguishable in print.

(*k*) Curves may be distinguished as full lines (——), broken (– – – –) or dotted lines (· · · ·), and dot-dash lines (— · — · —); further differentiation should normally be achieved by labelling the curves, which is, in any case, desirable.

(*l*) For reference in legends, it is preferable to mark curves A, B, C, *etc.* rather than to reproduce the type of line in print.

(*m*) There must be no unnecessary waste space, *e.g.* around curves; ordinates and abscissae should start at zero only if the curve extends to that range. Enlargement of parts of a figure can occasionally be placed in a corner of the complete figure.

(*n*) It is not advisable to insert much or complicated lettering on curves or in blank spaces; mistakes (in copying by the artist) can rarely be rectified once the block is made. It is better to label the curves A, B, C, *etc.* and to use explanatory legends.

(*o*) *Large* solid objects should be represented by hatching rather than by black surfaces, otherwise the ink may smear on printing.

(*p*) Photographs are reproduced by a half-tone process on art paper. The prints supplied must be very clear and of good contrast, as considerable definition may be lost in reproduction.

(*q*) Captions and explanatory legends, to be set by the printer should be typed on a separate page attached to the manuscript, and not given on the figure itself.

(*r*) Figures are numbered consecutively Figure 1, Figure 2, *etc.* (in arabic numerals). Photographs (half-tone reproduction) are numbered consecutively Plate 1, Plate 2, *etc.* but these numbers are independent of the numbering of any figures.

(*s*) Since figures represent an uneconomical use of space their number and size should be kept to a minimum. Figures and tables for the same values are discouraged.

NOTICES TO AUTHORS—No. 7/1970 (revised 1976)

Deposition of Data—Supplementary Publications Scheme

Preamble

The growing volume of research that produces large quantities of data, the increasing facilities for analysing such data mechanically, and the rising cost of printing are all making it very difficult to publish in the *Journal* in the normal way the full details of the experimental data which become available. Moreover, whilst there is a large audience for the general method and conclusions of a research project, the number of scientists interested in the details, and in particular in the data, of any particular case may be quite small. The British Library, Lending Division (B.L.L.D.) in consultation with the Editors of scientific journals, has now developed a scheme whereby such data and detail may be stored and then copies made available on request at the B.L.L.D., Boston Spa. The Chemical Society is a sponsor of this scheme and has indicated to the B.L.L.D. its wish to use the facilities being made available in this ' Supplementary Publications Scheme '.

Bulk information (such as crystallographic structure factor tables, computer programmes and output, evidence for amino-acid sequences, spectra, *etc.*), which accompanies papers published in future issues of the Chemical Society's *Journal* may in future be deposited, free of charge, with the Supplementary Publications Scheme, either at the request of the author and with the approval of the referees or on the recommendation of referees and with the approval of the author.

The Scheme

Under this scheme, authors will submit articles and the supplementary material to the *Journal* simultaneously in the normal way, and both will be refereed. If the paper is accepted for publication the supplementary material will be sent by the Society to the B.L.L.D. where it will be stored. Copies will be obtainable by individuals both in the U.K. and abroad on quoting a supplementary publication number that will appear in the parent article.

Preparation of Material

Authors will be responsible for the preparation of camera-ready copy according to the following specifications (although the Society will be prepared to help in case of difficulty).

(*a*) Optimum page size for text or tables in typescript: up to 30 cm × 21 cm.
(*b*) Limiting page size for text or tables in typescript: 33 cm × 24 cm.
(*c*) Limiting size for diagrams, graphs, spectra, *etc.*: 39 cm × 28.5 cm.
(*d*) Tabular matter should be headed descriptively on the first page, with column headings recurring on each page.
(*e*) Pages should be clearly numbered.

It is recommended that all material which is to be deposited should be accompanied by some prefatory text. Normally this will be the summary from the parent paper and authors will greatly aid the deposition of the material if a duplicate copy of the summary is provided. If authors have the facilities available the use of a type face designed to be read by computers is encouraged.

Deposition

The Society will be responsible for the deposition of the material with the B.L.L.D. The B.L.L.D. will not receive material direct from authors since the Library wishes to ensure that the material has been properly and adequately refereed.

Action by the Society

The Society will receive a manuscript for publication together with any supplementary material for deposition and will circulate all of this to referees in the normal way. When the edited manuscript is sent to the printers the supplementary material will be sent for deposition to the B.L.L.D. The Society will add to the paper a footnote indicating what material has been deposited in the Supplementary Publications Scheme, the supplementary publication number, and details as to how copies may be obtained.

Availability

Copies of Supplementary Publications may be obtained from the B.L.L.D. on demand by organizations which are registered borrowers. They should use the normal forms and coupons for such requests addressing them as follows:

Mr. J. P. Chillag,
British Library Lending Division,
Boston Spa,
Wetherby,
West Yorkshire, LS23 7BQ, U.K.

Non-registered users may also obtain copies of Supplementary Publications but should first apply for price quotations. These are available from the Loans Office at the above address.

International Collaboration

A similar scheme (known as the National Auxiliary Publications Service) is being operated in the U.S.A. by the American Society for Information Science. Similar schemes are also being contemplated in other countries. The provision of reciprocal arrangements for the exchange of supplementary data between the various national deposition centres is being investigated.

NOTICES TO AUTHORS—No. 8/1970

X-Ray Crystallographic Structure Factor Tables

The Society has recently taken advice from the members of its Chemical Crystallography Group and as a result of this and of the inception of the National Lending Library Supplementary Publications Scheme (discussed in Notices to Authors No. 7) the following rules are being taken into use forthwith to govern the publication or deposition of *X*-ray crystallographic structure factor tables.

(i) The Society will no longer publish tables of structure factors in its publications except in accordance with the provision of paragraph (iv) below.

(ii) All authors of crystallography papers will submit along with the manuscript a readable table of such structure factors for the referees' inspection. The table should be prepared in accordance with the detail given in paragraph 3 of Notices to Authors No. 7 so that it may be used for deposition. Computer printout may be used providing that it is top copy in good contrast (see note).

(iii) If the referees accept the paper and its associated structure factor tables then the Society will deposit these structure factor tables in the National Lending Library Supplementary Publications Scheme (see Notices to Authors No. 7) and will publish as a footnote to the paper the necessary details that will enable any reader to obtain a copy in microfiche or an electrophotographic printoff of the data tables associated with the paper.

(iv) Authors, or the referees, may request publication of such tables of structure factors, *in extenso*, in cases that seem to them to be desirable. It is expected that this will occur only rarely.

(v) The details of the National Lending Library Supplementary Publications Scheme and the methods for obtaining photographic printoff of material deposited with that scheme are given in Notices to Authors No. 7.

Note to paragraph (*ii*). Structure factors tables prepared from computer printout must be presented in the form indicated in paragraph 3 of Notices to Authors No. 7 and must be arranged with the greatest economy of space possible [*i.e.* not less than two groups of columns (h, k, l, F_c, F_o) to the page (30 cm × 21 cm)]. All columns must be headed. A ' paste-up ' on white card of computer printout will be acceptable providing the quality of the printout is adequate.

NOTICE TO AUTHORS—No. 9/1974 (revised 1981)

Nomenclature

For many years the Society has actively encouraged the use of standard I.U.P.A.C. nomenclature and symbolism in its publications as an aid to the accurate and unambigious communication of chemical information between authors and readers. Although the I.U.P.A.C. rules for naming organic compounds have now gained wide acceptance amongst chemists, mainly because they have been in existence for a number of years, those for naming inorganic compounds are of more recent origin and for this reason their acceptance is less general.

In order to encourage authors to use I.U.P.A.C. nomenclature rules when drafting papers, attention is drawn to the following publications in which both the rules themselves and guidance on their use are given.

'Nomenclature of Organic Chemistry, Sections A, B, C, D, E, F, and H,' Pergamon, Oxford, 1979 edn.

'Nomenclature of Inorganic Chemistry,' Butterworths, London, 1971.

'Manual of Symbols and Terminology for Physicochemical Quantities and Units,' Pergamon, Oxford, 1979.

'Biochemical Nomenclature and Related Documents,' The Biochemical Society, 1978.

A complete listing of all I.U.P.A.C. nomenclature publications appears in the 1981 Index issues of *J. Chem. Soc.*

It is recommended that where there are no I.U.P.A.C. rules for the naming of particular compounds or authors find difficulty in applying the existing rules, they should seek the advice of the Society's editorial staff.

NOTICE TO AUTHORS—No. 10/1976

Authentication of New Compounds

(1) It is the responsibility of authors to provide fully convincing evidence for the homogeneity and identity of all compounds they claim as new. Evidence of both purity and identity is required to establish that the properties and constants reported are those of the compound with the new structure claimed.

(2) In the context of this Notice a compound is considered as new (*a*) if it has not been prepared before, (*b*) if it has been prepared before but not adequately purified, (*c*) if it has been purified but not adequately characterised, (*d*) if, earlier, it has been assigned an erroneous constitution, or (*e*) if it is a natural product synthesised for the first time. In preliminary communications compounds are often recorded with limited characterising data; in spite of (*c*) above later preparations of such compounds are not considered as new if the properties previously reported are confirmed; the same applies to patents.*

(3) Referees are asked to assess, as a whole, the evidence in support of the homogeneity and structure of all new compounds. No hard and fast rules can be laid down to cover all types of compounds, but the Society's policy remains unchanged in that evidence for the unequivocal identification of new compounds should normally include good elemental analytical data; an accurate mass measurement of a molecular ion does not provide evidence of purity of a compound and must be accompanied by independent evidence of homogeneity. Low-resolution mass spectroscopy must be treated with even more reserve in the absence of firm evidence to distinguish between alternative molecular formulae. Where elemental analytical data are not available, appropriate evidence which is convincing to an expert in the field will be acceptable, but authors should include, for the referees, a brief explanation of the special nature of their problem.

(4) Spectroscopic information necessary to the assignment of structure should normally be given. Just how complete this information should be must depend upon the circumstances; the structure of a compound obtained from an unusual reaction or isolated from a natural source needs much stronger supporting evidence than one derived by a standard reaction from a precursor of undisputed structure. Authors are reminded that full spectroscopic assignments may always be treated as a Supplementary Publication where their importance does not justify their inclusion in the published paper.

(5) Finally, referees are reminded of the need to be exacting in their standards but at the same time flexible in their admission of evidence. It remains the Society's policy to accept work only of high quality and to permit no lowering of present standards.

* New compounds should be indicated by underlining the name (for italics) at its first mention (excluding headings) in the Experimental section only, and by giving analytical results in the form: (Found: C, 63.1; H, 5.4. $C_{13}H_{12}NO_4$ requires C, 63.2; H, 5.3%). If analytical results for compounds which have been adequately described in the literature are to be included, they should be given in the form: (Found: 62.95; H, 5.4. Calc. for $C_{13}H_{12}NO_4$: C, 63.2; H, 5.3%). Analyses are normally quoted to the nearest 0.05%.

NOTICE TO AUTHORS—No. 11/1976 (revised 1981)

Publication of *X*-Ray Crystallographic Work in the *Journal*

Preamble

At a meeting of the Primary Journals Committee held in October 1975 a sub-committee was set up to consider policy with regard to publication in the *Journal* of both preliminary communications and substantive papers concerned with *X*-ray crystallographic work. This step was taken in the light of correspondence received by the Society which indicated concern by many referees on the problems created by the large number of routine *X*-ray crystallographic studies submitted to the Society as a result of the increasing ease of carrying out such work.

Since the sub-committee's terms of reference were wide it was able to consider both this problem and others relating to publication of *X*-ray crystallographic work in all sections of the *Journal*. Its recommendations which are outlined below fall into two groups: those concerned with preliminary communications and those with full papers. These recommendations have been endorsed by the Primary Journals Committee and now represent the Society's policy with regard to crystallographic work submitted for publication in its primary journals.

Preliminary Communications

Evidence was presented to the sub-committee that a major problem associated with the publication of preliminary reports of crystallographic work in *Chem. Commun.* arose as a result of the non-availability to interested readers of the atomic co-ordinates associated with this work. Although in the normal course of events such data would be expected to appear in the follow-up paper, many cases were cited where the period between publication of the preliminary report and the substantive paper was many years or the full papers never appeared in print. The evidence presented suggested that there was considerable disquiet among crystallographers at this state of affairs. The measures taken to improve this situation are outlined in Notices to Authors for *J. Chem. Soc., Chem. Commun.*

Papers in Dalton and Perkin Transactions

The sub-committee considered evidence which indicated that *X*-ray crystallographic papers submitted to the *Journal* were assessed in a less rigorous fashion than those reporting other areas of work. Although the sub-committee felt that this claim was largely unsubstantiated it was agreed that improvement of both assessment procedure and presentation of work was possible. The following recommendations have, therefore, been adopted.

(1) Crystallographic papers will be assessed for their chemical as well as their crystallographic interest.

(2) Unless both specifically requested by the author and recommended by the referees for publication, vibrational parameters will be routinely deposited with the structure factors as a Supplementary Publication. Where vibrational parameters are to be published they should be in the form of U_{ij} with units of Å^2.

Referees are reminded that they may, at their discretion, recommend other material for deposition where in their view its inclusion in the parent paper is not justified by its interest.

(3) Each paper should contain a line drawing of the compound under discussion where appropriate in addition to the usual crystallographic figures.

NOTICE TO AUTHORS—No. 12/1977

Publication of Theoretical and Computational Papers

The Primary Journals Committee has been considering future policy towards the publication of papers with a heavily computational content, particularly where these involve standard methods, such as semi-empirical or *ab initio* calculations of molecular electronic properties using readily available computer programmes. Many such papers report what would be considered 'routine work' in other areas of chemistry, and have often included extensive detail.

A specialist sub-committee formulated a set of proposals which were circulated to a large representative sample of theoretical chemists and met with general acceptance. These, with the comments on them, form the basis of this notice.

The Primary Journals Committee recognises that computational work can play a valuable role in chemistry, and will probably continue to do so on an increasing scale. It accepts the time-honoured principle that the first criterion for publication of a paper by the Society should be the worthiness of the chemical problem considered, rather than the particular techniques employed by the author. For example, the use of a new computing algorithm, or the modification of a programme, would not usually, on its own, provide sufficient justification for publication.

The Primary Journals Committee recommends to authors the following guidelines for the preparation of computational papers, so that the material can be presented concisely and effectively.

(i) Papers should be submitted to the appropriate journal: a paper containing innovations in theory to Faraday Transactions II, one in which the computations are incidental to the chemistry to Perkin, Dalton, or Faraday I Transactions. Papers concerned mainly with computational details are unlikely to be accepted.

(ii) The purpose of the paper and the precise objectives of the calculations performed should be clearly stated: the results obtained should be reported only in so far as they relate to those objectives.

(iii) Many papers use a routine procedure based on a well documented method, be it semi-empirical or *ab initio*. It is then sufficient to name the particular variant, referring to key papers in which the method was developed, to cite the computer programme used, and to indicate *briefly* any modification made by the author. A review of theoretical background would be out of place, but an author should say why he considers the method adequate for his purposes.

(iv) Extensive tabulation of numerical results, such as the magnitudes of atomic orbital coefficients, electron populations, contour maps of molecular orbitals and electron densities, and peripheral material of a similar nature, is normally unnecessary. Lengthy line-by-line discussion of such material is, as a general rule, quite unacceptable. Where an author considers that there is a special need to make such material available to other workers, as with highly accurate computations, for example, then this may be deposited with the British Library as a Supplementary Publication. Such material should be submitted with the main paper, clearly distinguished from it, and referred to in the main text.

Guidelines can never provide sufficient criteria for acceptance or rejection of a paper. Critical assessment of the theoretical methods used in a computation, and of their suitability for the purpose in hand, will continue to be entrusted to specialist referees who must also decide whether the results are new and advance science.

Chemical nomenclature:*

Where to find that name, symbol or unit that you're looking for

Rules for naming, symbolizing and representing chemical compounds have been published in various journals, leaflets and books. IUPAC has compiled much of this information into a few major reference books, but much remains dispersed in the chemical literature. Chemical nomenclature changes constantly, and it is necessary to publish revisions and additions separately (usually, in the IUPAC journal *Pure & Applied Chemistry*). Other nomenclature reports -- recommending terminology, symbols and units for reporting of results — deal with a diverse range of subjects. Collecting such reports into a few subject areas is not always possible or practical — although that is precisely what is attempted here.

The following listing is intended to be a comprehensive compilation of all chemical nomenclature published in recent years. It is presented in two main sections. The first deals with nomenclature of chemical compounds. These are subdivided into Analytical Reagents, Biochemical Compounds, Inorganic Substances, Organic Compounds, and Polymers. The second contains terminology, symbols, units and recommendations for presentation of results. These are divided into General Terminology, Terminology for Chemical Analysis, and Terminology for Spectroscopic Techniques.

NOMENCLATURE OF CHEMICAL COMPOUNDS

I. Analytical Reagents

Guide to Trivial Names, Trade Names and Synonyms for Substances used in Analytical Chemistry, *Pure & Appl. Chem.*, Vol. 50, No. 4 (1978) pp. 339 - 370.

II. Biochemical Compounds

AMINO ACIDS AND DERIVATIVES

***Nomenclature of Amino Acids (Provisional Nomenclature Appendix No. 46, September 1975).**

***Symbols for Amino Acid Derivatives and Peptides (*Pure & Appl. Chem.*, Vol. 40, No. 3, 1974, pp. 315 - 331).**

BIOCHEMICAL EQUILIBRIUM

***Recommendations for measurement and presentation of Biochemical Equilibrium Data (Provisional Nomenclature Appendix No. 61, July 1977, *Info. Bull.*).**

CARBOHYDRATES & SUGARS

Conformational Nomenclature for Five and Six-Membered Ring Forms of Monosaccharides and Their Derivatives (Provisional) (*Pure & Appl. Chem.*, Vol. 53, No. 10, 1981 and also in the *Eur. J. Biochem*, 111, 295 - 298, 1980).

Abbreviated Terminology of Oligosaccharide Chains (Provisional) (to be published in late 1981 in *Pure & Appl. Chem.* and *J. Biol. Chem.*).

Polysaccharide Nomenclature (Provisional) (to be published in late 1981 in *Pure & Appl. Chem.* and *J. Biol. Chem.*).

Nomenclature of Unsaturated Monosaccharides (Provisional) (to be published in late 1981 in *Pure & Appl. Chem.* and *Eur. J. Biochem.*).

Nomenclature of Branched-chain Monosaccharides (Provisional) (to be published in late 1981 in *Pure & Appl. Chem.* and *Eur. J. Biochem.*).

ENZYMES

Enzyme Nomenclature (1978), published by Academic Press in hardcover and softcover editions. First supplement in *Eur. J. Biochem.*, 104, 1 - 4, 1980. Second supplement published in *Eur. J. Biochem.*, 116, 423 - 435, 1981.

LIPIDS

***Nomenclature of Lipids (Provisional Nomenclature Appendix No. 67, December, 1977).**

NUCLEIC ACIDS

***Abbreviations and Symbols for Nuclei Acids, Polynucleotides and their Constituents (*Pure & Appl. Chem.*, Vol. 40, No. 3, 1974, pp. 277 - 290).**

* This list of I.U.P.A.C. publications is reprinted from *Chemistry International*, 1981, No. 5, pp. 28—32.

PHOSPHORUS COMPOUNDS

*Nomenclature of Phosphorus-containing Compounds of Biochemical Importance (Provisional Nomenclature Appendix No. 66, December 1977).

PROTEINS & PEPTIDES

*Nomenclature of Peptide Hormones (Provisional Nomenclature Appendix No. 48, September 1975).

*Abbreviations and Symbols for the Description of Conformation of Polypeptide Chains (*Pure & Appl. Chem.*, Vol. 40, No. 3, 1974, pp. 291 - 308).

*Abbreviated Nomenclature of Synthetic Polypeptides (Polymerized Amino Acids) *Pure & Appl. Chem.*, Vol. 33, Nos. 2 - 3, 1973, pp. 437 - 444).

Nomenclature of Iron-Sulfur Proteins (*Eur. J. Biochem.*, 93, 427 - 430, 1979; corrected in *Eur. J. Biochem.*, 102, 315, 1979).

*A One-letter Notation for Amino Acid Sequences (*Pure & Appl. Chem.*, Vol. 31, No. 4, 1972, pp. 639 - 645).

Rules for Naming Synthetic Modifications of Natural Peptides (*Pure & Appl. Chem.*, Vol. 31, No. 4, 1972, pp. 647 -653).

VITAMINS

*Nomenclature for Vitamin B-6 and Related Compounds (*Pure & Appl. Chem.*, Vol. 33, Nos. 2 - 3, 1973, pp. 445 -452).

*Also published in "Biochemical Nomenclature and Related Documents", 1978, a 220 page softcover manual published for The Biochemical Society for IUB (available from the Biochemical Society Book Depot, P.O. Box 32, Commerce Way, Colchester, Essex C02 8HP, England).

III. Inorganic Substances

ACIDS

Chapter 5 of "Nomenclature of Inorganic Chemistry".*

ADDITION COMPOUNDS

Chapter 8 of "Nomenclature of Inorganic Chemistry".*

BORON COMPOUNDS

Nomenclature of Inorganic Boron Compounds (*Pure & Appl. Chem.*, Vol. 30, Nos. 3 - 4, 1972, pp. 681 - 710).

CARBON

International cooperation on characterization and terminology of carbon and graphite. (*Pure & Appl. Chem.*, Vol. 51, No. 7, 1979, pp. 1561 - 1574).

COORDINATION COMPOUNDS

Chapter 7 of "Nomenclature of Inorganic Chemistry".*

CRYSTALLINE PHASES

Chapter 9 of "Nomenclature of Inorganic Chemistry".*

ELEMENTS

Recommendations for the Name of Elements of Atomic Numbers Greater than 100 (*Pure & Appl. Chem.*, Vol. 51, No. 2, 1979, p. 381)

Chapter 1 of "Nomenclature of Inorganic Chemistry".*

IONS & RADICALS

"How to name an Inorganic Substance", the companion guide to the use of "Nomenclature of Inorganic Chemistry".

ISOTOPICALLY-MODIFIED COMPOUNDS

Nomenclature of Inorganic Chemistry. Part II.1. Isotopically-modified compounds. (*Pure & Appl. Chem.*, Vol. 53, No. 10, 1981).

NITROGEN

Nomenclature of Hydrides of Nitrogen and Derived Cations, Anions and Ligands (*Info. Bull.*, No. 2, 1978).

POLYANIONS

Chapter 4 of "Nomenclature of Inorganic Chemistry".*

SALTS

Chapter 6 of "Nomenclature of Inorganic Chemistry'.*

ZEOLITES

Chemical nomenclature and formulation of compositions of synthetic and natural zeolites. (*Pure & Appl. Chem.*, Vol. 51, No. 5, 1979, p. 1091).

*Nomenclature of Inorganic Chemistry" is a 110 page hardcover volume (published 1970) available from Pergamon Press. A 36 page softcover booklet "How to Name an Inorganic Substance" was later published (1977) as a companion guide.

IV. Organic Compounds

ALCOHOLS & PHENOLS

Section C of "Nomenclature of Organic Chemistry".*

ALDEHYDES & KETONES

Section C of "Nomenclature of Organic Chemistry".*

CARBOXYLIC ACIDS

Section C of "Nomenclature of Organic Chemistry".*

CAROTENOIDS

Nomenclature of Carotenoids (*Pure & Appl. Chem.*, Vol. 41, No. 3, 1975, pp. 405 - 431).

COORDINATION COMPOUNDS

Section D of "Nomenclature of Organic Chemistry".*

CORRINOIDS

Nomenclature of Corrinoids (*Pure & Appl. Chem.*, Vol. 48, No. 4, 1976, pp. 495 - 502).

CYCLITOLS

Nomenclature of Cyclitols (*Pure & Appl. Chem.*, Vol. 37, Nos. 1 - 2, 1974, pp. 283 - 297).

HALOGENATED DERIVATIVES

Section C of "Nomenclature of Organic Chemistry".*

HETEROCYCLIC COMPOUNDS

Section B of "Nomenclature of Organic Chemistry".*

Revision of the extended Hantzsch-Widman System of Nomenclature for Heteromonocycles (*Pure & Appl. Chem.*, Vol. 51, No. 9, 1979, pp. 1995 - 2003).

HYDROCARBONS

Section A of "Nomenclature of Organic Chemistry".*

ISOTOPICALLY-MODIFIED COMPOUNDS

Section H of "Nomenclature of Organic Chemistry".*
Also published in *Pure & Appl. Chem.*, Vol. 52, No. 2, 1979, pp. 355 - 380

NATURAL PRODUCTS

Section F of "Nomenclature of Organic Chemistry".*

NITROGEN-CONTAINING COMPOUNDS

Section C of "Nomenclature of Organic Chemistry".*

ORGANOMETALLIC COMPOUNDS

Section D of "Nomenclature of Organic Chemistry".*

ORGANOPHOSPHORUS COMPOUNDS

Section D of "Nomenclature of Organic Chemistry".*

ORGANOSILICON COMPOUNDS

Section D of "Nomenclature of Organic Chemistry".*

QUINONES

Nomenclature of Quinones with Isoprenoid Side-Chains (*Pure & Appl. Chem.*, Vol. 38, 1974, pp. 439 - 447).

STEREOCHEMISTRY

Section E of "Nomenclature of Organic Chemistry".*

STEROIDS

Nomenclature of Steroids (*Pure & Appl. Chem.*, Vol. 31, Nos. 1 - 2, 1972, pp. 283 - 322).

SULFUR-CONTAINING COMPOUNDS

Section C of "Nomenclature of Organic Chemistry".*

TETRAPYRROLES

Nomenclature of Tetrapyrroles (*Pure & Appl. Chem.*, Vol. 51, No. 11, 1979, pp. 2251 - 2304).

TOCOPHEROLS

Nomenclature of Tocopherols and Related Compounds (Provisional Nomenclature Appendix No. 47, September 1975).

*"Nomenclature of Organic Chemistry" is a 550 page volume published in 1979. It is available in hardcover and softcover editons from Pergamon Press, Oxford.

Section A: Hydrocarbons.
Section B: Fundamental Heterocyclic Systems.
Section C: Characteristic Groups containing carbon, Hydrogen, oxygen, nitrogen, halogen, sulfur, selenium and Tellurium.
Section D: Organic Compounds containing elements that are not exclusively carbon, hydrogen, oxygen, nitrogen, halogen, sulfur, selenium and tellurium.
Section E: General Principles for the naming of natural products and related compounds.
Section H: Isotopically modified compounds.

V. Polymers

Nomenclature for regular single-strand and quasi single-strand inorganic and coordination polymers (Provisional) (to be published in *Pure & Appl. Chem.*, Vol. 53, late 1981).

Sterochemical definitions and notations relating to polymers (*Pure & Appl. Chem.*, Vol. 53, No. 3, 1981, pp. 733 - 752).

List of Standard Abbreviations (Symbols) for Synthetic Polymers and Polymer Materials (*Pure & Appl. Chem.*, Vol. 40, No. 3, 1974, pp. 473 - 476).

Basic Definitions of Terms Relating to Polymers (*Pure & Appl. Chem.*, Vol. 40, No. 3, 1974, pp. 477- 491).

TERMINOLOGY, SYMBOLS, UNITS AND PRESENTATION OF RESULTS

I. General Chemical Terminology

CATALYSIS

Definitions, Terminology and Symbols in Colloid and Surface Chemistry — II. Heterogenous Catalysis (*Pure & Appl. Chem.*, Vol. 46, No. 1, 1976, pp. 71 - 90).

For enzymes, see Biochemical compounds. For enzyme activity, see *Eur. J. Biochem.*, 97, 319 - 320, 1979; corrected in *Eur. J. Biochem.*, 104, 1, 1980.

CHEMICAL REACTIONS

Nomenclature for straightforward transformations (Provisional) (*Pure & Appl. Chem.*, Vol. 53, No. 1, 1981, pp. 306 - 321).

Symbolism and terminology in chemical kinetics (Provisional) (*Pure & Appl. Chem.*, Vol. 53, No. 3, 1981, pp. 753 - 771).

CLINICAL CHEMISTRY

Physicochemical quantities and units in clinical chemistry with special emphasis on activities and activity coefficients (Provisional) (*Pure & Appl. Chem.*, Vol. 53, No. 8, 1981, pp. 1605 - 1643).

Quantities and Units in Clinical Chemistry (*Pure & Appl. Chem.*, Vol. 51, No. 12, 1979, pp. 2451 - 2480).

List of Quantities in Clinical Chemistry (*Pure & Appl. Chem.*, Vol. 51, No. 12, 1979, pp. 2481 - 2502).

ELECTROCHEMISTRY

Nomenclature for Transport Phenomena in Electrolytic Systems. (*Pure & Appl. Chem.*, Vol. 53, No. 10, 1981).

Electrode Reaction Orders, Transfer Coefficients and Rate Constants — Amplification of Definitions and Recommendations for Publication of Parameters. (*Pure & Appl. Chem.*, Vol. 52, No. 1, 1980, pp. 233 - 240).

Recommended terms, symbols and definitions for electroanalytical chemistry. (*Pure & Appl. Chem.*, Vol. 51, No. 5, 1979, pp. 1161 - 1174).

Classification and Nomenclature of Electroanalytical Techniques (*Pure & Appl. Chem.*, Vol. 45, No. 2, 1976, pp. 81 - 97).

Recommendations for Sign Conventions and Plotting of Electrochemical Data (*Pure & Appl. Chem.*, Vol. 45, No. 2, 1976, pp. 131 - 134).

Electrochemical Nomenclature (*Pure & Appl. Chem.*, Vol. 37, No. 4, 1974, pp. 499 - 516).

Electrochemical Nomenclature (*Pure & Appl. Chem.*, Vol. 37, No. 4, 1974, pp. 499 - 516).

PHYSICAL ORGANIC CHEMISTRY

Glossary of terms used in physical organic chemistry (*Pure & Appl. Chem.*, Vol. 51, No. 8, 1979, pp. 1725 - 1802).

PHYSICOCHEMICAL QUANTITIES AND UNITS

Manual of symbols and Terminology for Physicochemical Quantities and Units. (*Pure & Appl. Chem.*, Vol. 51, No. 1, 1979, p. 1.). (Also available from Pergamon Press as a 40 page softcover booklet.)

Selected definitions, terminology and symbols for rheological properties. (Manual of Symbols and Terminology for physicochemical quantities and units. Appendix II) (*Pure & Appl. Chem.*, Vol. 51, No. 5, 1979, pp. 1215 - 1218).

QUANTUM CHEMISTRY

Expression of Results in Quantum Chemistry (*Pure & Appl. Chem.*, Vol. 50, 1978, pp. 75 - 79)

SURFACE CHEMISTRY

Definitions, Terminology and Symbols in Colloid and Surface Chemistry — I. (*Pure & Appl. Chem.*, Vol. 31, No. 4, 1972, pp. 577 - 638). See also CATALYSIS in this section.

THERMODYNAMICS & THERMAL ANALYSIS

Nomenclature for thermal analysis — Part IV (Provisional) (*Pure & Appl. Chem.*, Vol. 53, No. 8, 1981, pp. 1597 -1604).

Recommendations for Nomenclature of Thermal Analysis— II. DTA and TG Apparatus and Technique, III. DTA and TG Curves (*Pure & Appl. Chem.*, Vol. 52, No. 10, 1980, pp. 2387 - 2391).

Recommendations for Nomenclature of Thermal Analysis (*Pure & Appl. Chem.*, Vol. 37, No.4, pp. 439 - 444).

Assignment and presentation of uncertainties of the numerical results of thermodynamics measurements (Provisional) (*Pure & Appl. Chem.*, Vol. 53, No. 9, 1981, p. 1805).

Calorimetric measurements on cellular systems: recommendations for measurements and presentation of results (Provisional) (to be published in *Pure & Appl. Chem.*, Vol. 53, late 1981).

A Guide to Procedures for the Publication of Thermodynamics Data (*Pure & Appl. Chem.*, Vol. 29, Nos. 1 - 3, 1972, pp. 395 - 408).

***Also published in the hardcover volume, "Compendium of Analytical Chemistry" (1978). It includes terminology and nomenclature for precision balances, scales of working, contamination phenomena in precipitation from aqueous solution, automatic analysis, thermal analysis, mass spectroscopy, titrimetric analysis, standardization of pH, pH measurement in amphriprotic and mixed solutions, solution equilibria, liquid - liquid distribution, gas chromotography, chromotography, ion exchange, atomic emission spectroscopy, data interpretation, flame spectroscopy, electroanalytical techniques, plotting electrochemical data. Published as a 222 page hardcover book available from Pergamon Press.**

II. Chemical Analysis

AUTOMATIC ANALYSIS

***Recommended Nomenclature for Automatic Analysis (*Pure & Appl. Chem.*, Vol. 21, No. 4, 1970, pp. 527 - 531).**

CHROMATOGRAPHY

***Recommendations on Nomenclature for Chromatography (*Pure & Appl. Chem.*, Vol. 37, No. 4, 1974, pp. 445 - 462).**

Recommendations for publication of papers on a new analytical method based on ion exchange or ion-exchange chromatography (*Pure & Appl. Chem.*, Vol. 52, No. 11, 1980, pp. 2555 - 2562).

COMPLEXIMETRIC INDICATORS

Recommendations for presentation of data on complexiimetric indicators. 1. General (*Pure & Appl. Chem.*, Vol. 51, No. 6, 1979, pp. 1357 - 1336).

GRAVIMETRIC ANALYSIS

Recommendations for Publication of Papers on Precipitation Methods of Gravimetric Analysis (to be published in *Pure & Applied Chemistry*, late 1981 or early 1982).

***Recommendations on Nomenclature for Contamination Phenomena in Precipitation from Aqueous Solutions (*Pure & Appl. Chem.*, Vol. 37, No. 4, 1974, pp. 463 - 468).**

ION EXCHANGE

***Recommendations on Ion Exchange Nomenclature (*Pure & Appl. Chem.*, Vol. 29, No. 4, 1972, pp. 617 - 624).**

ION SELECTIVE ELECTRODES

Recommendations for Publishing Manuscripts on Ion-Selective Electrodes (*Pure & Appl. Chem.*, Vol. 53, No. 10, 1981).

***Recommendations for Nomenclature of Ion-Selective Electrodes (*Pure & Appl. Chem.*, Vol. 48, No. 1, 1976, pp. 127 - 132).**

Selectivity coefficients of ion-selective electrodes (*Pure & Appl. Chem.*, Vol. 51, No. 9, 1979, pp. 1913 - 1980).

MICROCHEMICAL ANALYSIS

***Terminology for Scales of Working in Microchemical Analysis (*Pure & Appl. Chem.*, Vol. 51, No. 1, 1979, p. 43).**

SOLUTION CONCENTRATION

***Recommendations on the Usage of the Terms "Equivalent" and "Normal" (*Pure & Appl. Chem.*, Vol. 50, 1978, pp. 325 - 338).**

SOLVENT EXTRACTION

Proposed Terminology and Symbols for the Transfer of Solutes from One Solvent to Another (*Pure & Appl. Chem.*, Vol. 50, No. 6, 1978, pp. 589 - 591).

***Recommended Nomenclature for Liquid Liquid Distribution (Solvent Extraction): (Provisional Nomenclature Appendix No. 63, July 1977).**

TRACE ANALYSIS

General Aspects of Trace Analytical Methods . II. Standard Reference Materials for Trace Analysis (*Pure & Appl. Chem.*, No. 11/12, 1978, pp. 1531 - 1700). III. Contamination in Trace Analysis (*Pure & Appl. Chem.*, No. 11/12, 1978, p. 1519).

III. Spectroscopic Terminology & Presentation of Spectra

ABSORPTION SPECTROSCOPY, UV-VISIBLE

Recommendations for Publication of Papers on Methods of Molecular Absorption Spectrophotometry in Solution between 200 and 800 nm (*Pure & Appl. Chem.*, Vol. 50, No. 3, 1978, pp. 237 - 242)

ATOMIC ABSORPTION & EMISSION

***Nomenclature, Symbols, Units and Their Usage in Spectrochemical Analysis — Part I. General Atomic Emission Spectroscopy (*Pure & Appl. Chem.*, Vol. 30, Nos. 3 - 4, 1972, pp. 651 - 679).**

***Nomenclature, Symbols, Units and Their Usage in Spectrochemical Analysis — Part III. Analytical Flame Spectroscopy and Associated Non-Flame Procedures (*Pure & Appl. Chem.*, Vol. 45, No. 2, 1976, pp. 105 - 123).**

Nomenclature, symbols, units and their usage in spectrochemistry — Part V. Radiation sources (Provisional) (to be published in *Pure & Appl. Chem.*, Vol. 53, No. 10, 1981).

ELECTRON SPECTROSCOPY

Nomenclature and Spectral Presentation in Electron Spectroscopy Resulting from Excitation by Photons (*Pure & Appl. Chem.*, Vol. 45, Nos. 3 - 4, 1976, pp. 221 - 224). See also SPECTROSCOPIC ANALYSIS OF SURFACES in this section.

INFRARED SPECTROSCOPY

Recommendations for the Presentation of Infrared Absorption Spectra in Data Collections—A. Condensed Phases (*Pure & Appl. Chem.*, Vol. 50, 1978, pp. 231 - 236).

Definition and Symbolism of Molecular Force Constants (*Pure & Appl. Chem.*, No. 11/12, 1978, pp. 1709 - 1713).

LUMINESCENCE SPECTROSCOPY

Nomenclature, symbols, units and their usage in spectrochemical analysis — Part VI. Molecular luminescence spectroscopy (Provisional) (to be published in *Pure & Appl. Chem.*, Vol. 53, No. 10, 1981).

MASS SPECTROMETRY

Recommendations for Symbolism and Nomenclature for Mass Spectrometry (*Pure & Appl. Chem.*, Vol. 50, 1978, pp. 65 - 73).

***Recommendations for Nomenclature of Mass Spectrometry (*Pure & Appl. Chem.*, Vol. 37, No. 4, 1974, pp. 469 - 480).**

MOSSBAUER SPECTROSCOPY

Nomenclature and Conventions for Reporting Mossbauer Spectroscopic Data (*Pure & Appl. Chem.*, Vol. 45, Nos. 3 - 4, 1976, pp. 211 - 216).

NMR SPECTROSCOPY

Recommendations for the Presentation of NMR Data for Publication in Chemical Journals—B. Conventions Relating to Spectra from Nuclei Other than protons (*Pure & Appl. Chem.*, Vol. 29, No. 4, 1972, pp. 625 - 628).

Recommendations for the Presentation of NMR Data for Publication in Chemical Journals—B. Conventions Relating to Spectra from Nuclei Other than protons (*Pure & Appl. Chem.*, Vol. 45, Nos. 3 - 4, 1976, pp. 217 - 219).

RAMAN SPECTROSCOPY

Presentation of Raman Spectra in data collections (*Pure & Appl. Chem.*, Vol. 53, No. 10, 1981).

SPECTROSCOPIC ANALYSIS OF SURFACES

Recommendations for nomenclature, standard procedures and reporting of experimental data for surface analysis techniques. Part IV of General Aspects of trace analytical methods. (*Pure & Appl. Chem.*, Vol. 51, No. 11, 1979, pp. 2243 - 2250).

SPECTROSCOPIC DATA, INTERPRETATION

***Nomenclature, Symbols, Units and Their Usage in Spectrochemical Analysis—Part II. Data Interpretation (*Pure & Appl. Chem.*, Vol. 45, No. 2, 1976, pp. 99 - 103).**

THERMAL ANALYSIS

See section on General Chemical Terminology.

X-RAY SPECTROSCOPY

Nomenclature, Symbols, Units and Their Usage in Spectrochemical analysis — Part IV. X-Ray Emission Spectroscopy (*Pure & Appl. Chem.*, Vol. 52, No. 11, 1980, pp. 2543 - 2552).

***Also published in the "Compendium of Analytical Nomenclature", (1978), a hardcover volume available from Pergamon Press.**

ERRATA

Perkin II Transactions

1979, page 88, right-hand column, line 1: *delete* 0.44 and *insert* 0.044; *delete* 0.29 and *insert* 0.029.

1981, page 822, Tables 1 and 2: throughout these tables, *replace* 10^2k by 10^3k.

page 862, Table 2: *delete* the entries relating to *E,E*-oximes (2; R = H) and replace by:

E,E-Oximes	α-H	7.68	7.55	7.81	7.64	7.66
(2; R = H)	β-H	6.77	6.71	6.82	6.79	6.67
	Aryl		~7.3, ~6.8	8.18, 7.59	7.5—7.2	7.5—7.2
	Aryl′	7.7—7.3	7.4, 6.82	7.55—7.35	7.93, 7.45	8.24, 7.69

page 1510, right-hand column, line 22: *delete* 234 and *insert* 243.

PUBLICATIONS AND INFORMATION BOARD

C. W. Rees, Ph.D., D.Sc., C.Chem., F.R.S.C., F.R.S. (Chairman)
K. W. Bagnall, B.Sc., Ph.D., D.Sc., C.Chem., F.R.S.C.
*J. I. G. Cadogan, B.Sc., Ph.D., D.Sc., C.Chem., F.R.S.C., F.R.S.E., F.R.S.
H. J. Cluley, M.Sc., Ph.D., C.Chem., F.R.S.C.
*Sir Ewart Jones, C.Chem., F.R.S.C., F.R.S.
*G. W. Kirby, M.A., Ph.D., Sc.D., C.Chem., F.R.S.C., F.R.S.E.
F. J. McQuillin, M.A., D.Phil., D.Sc., C.Chem., F.R.S.C.
*J. A. Pickup, B.A.
*J. R. Ruck Keene, C.B.E., M.A.
F. S. Stone, Ph.D., D.Sc., C.Chem., F.R.S.C.
*T. M. Sugden, C.B.E., M.A., Ph.D., Sc.D., C.Chem., F.R.S.C., F.R.S.
*K. W. Sykes, B.Sc., M.A., D.Phil., C.Chem., F.R.S.C.
J. M. Thomas, Ph.D., D.Sc., C.Chem., F.R.S.C., F.R.S.
*J. M. Ward, B.Sc., C.Chem., F.R.S.C.
W. B. Whalley, Ph.D., D.Sc., C.Chem., F.R.S.C.

JOURNALS COMMITTEE

G. W. Kirby, M.A., Ph.D., Sc.D., C.Chem., F.R.S.C., F.R.S.E. (Chairman)
*L. Crombie, Ph.D., D.Sc., C.Chem., F.R.S.C., F.R.S.
*E. A. V. Ebsworth, M.A., Ph.D., Sc.D., C.Chem., F.R.S.C.. F.R.S.E.
C. R. Ganellin, B.Sc., Ph.D., C.Chem., F.R.S.C.
P. M. Maitlis, B.Sc., Ph.D., D.Sc., C.Chem., F.R.S.C.
*J. M. Ottaway, B.Sc., Ph.D., D.Sc., C.Chem., F.R.S.C.
*C. W. Rees, Ph.D., D.Sc., C.Chem., F.R.S.C., F.R.S.
*M. C. R. Symons, Ph.D., D.Sc., C.Chem., F.R.S.C.
*I. A. Williams, M.A., Ph.D., M.I.Inf.Sci., C.Chem., M.R.S.C.

PERKIN EDITORIAL BOARD

L. Crombie, Ph.D., D.Sc., C.Chem., F.R.S.C., F.R.S. (Chairman)
B. C. Challis, B.Sc., Ph.D.
R. D. Chambers, Ph.D., D.Sc., C.Chem., F.R.S.C.
L. Hough, Ph.D., D.Sc., C.Chem., F.R.S.C.
T. J. King, M.A., B.Sc., D.Phil., C.Chem., F.R.S.C.
*G. W. Kirby, M.A., Ph.D., Sc.D., C.Chem., F.R.S.C., F.R.S.E.
P. G. Sammes, Ph.D., D.Sc., D.I.C., C.Chem., F.R.S.C.
*E. R. Smith, Ph.D., C.Chem., F.R.S.C.
I. O. Sutherland, M.A., Ph.D.

*Ex officio member

© Copyright 1981 by The Royal Society of Chemistry

RSC Publications News

SPECIALIST PERIODICAL REPORTS

Aliphatic and Related Natural Product Chemistry Vol. 2

Senior Reporter : F. D. Gunstone

This second volume in the series reviews the literature published during 1978 and 1979

Brief contents :

Natural Acetylenic and Olefinic Compounds, excluding Marine Natural Products; Acyclic Terpenoids; Insect Pheromones and Related Behaviour—modifying Chemicals; Olefinic Microbial Metabolites, including Macrocyclin Compounds; Prostaglandins; Fatty Acids and Glycerides; Polar Lipids;

"The volume contains many references and should provide an excellent start for anyone initiating a research program in any areas indicated. Every library should have a copy of this book."

—*J.A.O.C.S. reviewing Vol. 1.*

Hardcover 278pp 0 85186 652 2
Price £40.00 ($85.00) RSC Members £24.00

Foreign Compound Metabolism in Mammals Vol. 6

Senior Reporter : D. E. Hathway

The sixth volume in this series covers the literature published during 1978 and 1979

Brief contents :

Drug Kinetics; Enzymic Mechanisms of Oxidation, Reduction, and Hydrolisis; Enzymic Mechanisms of Conjugation; Species; Strain, and Sex Differences in Metabolism; Mechanisms of Chemical Carcinogenesis; Effect of Drugs on the Central Nervous System; Cardiovascular Drugs; Sympathomimetic Agents and Bronchodilators; Anti-infective Agents; Prostaglandins and Steroids; Food Constituents; Agricultural Chemicals; Industrial Chemicals and Miscellaneous Organic Compounds.

"Overall, this volume is recommended highly as an organised source of metabolism-pharmacokinetics literature on important xembiotics of many kinds."

—*Journal of Pharmaceutical Sciences, reviewing Vol. 5*

Hardcover 406pp 0 85186 058 3
Price : £64.00 ($136.00) RSC Members £35.00

Inorganic Biochemistry Vol. 2

Senior Reporter : H. A. O. Hill

This subject has developed dramatically in recent years and it is believed that this series will ease the burden to inorganic biochemists as they seek to relate their work to fields far beyond the confines of the traditional disciplines. This second volume in the series reviews relevant literature on the subject published up to late 1978.

Brief contents :

Inorganic Analogues of Biological Molecules; Storage, Transport, and Function of Non-transition Elements; Electron-transport Proteins; Oxidases and Reductases; Zinc Metalloenzymes; Manganese Metalloproteins and Manganese-activated Enzymes; Trace Elements in Animal Nutrition; Inorganic Elements in Biology and Medicine;

"For those with any interest in this area—and biochemists—the volume is a 'must'!"

—*Chemistry and Industry, reviewing Vol. 1*

Hardcover 362pp 0 85186 555 0
Price : £40.00 ($85.00) RSC Members £25.00

Nuclear Magnetic Resonance Vol. 10

Senior Reporter : G. A. Webb

A review of the literature published between June 1979 and May 1980

Brief contents :

Theoretical and Physical Aspects of Nuclear Shielding; Applications of Nuclear Shielding; Theoretical Aspects of Spin-Spin Couplings; Applications of Spin-Spin Couplings; Nuclear Spin Relaxation Fluids; Solid State N.M.R.; Multiple Resonance; Natural Macromolecules; Synthetic Macromolecules; Conformational Analysis; N.M.R. of Paramagnetic Molecules; N.M.R. of Liquid Crystals and Micellar Solutions.

"A subject index at the end, many tables and a clear table of contents at the beginning of each chapter complete this volume, which ought to be present in all university chemistry libraries."—*European Spectroscopy News, reviewing Vol. 8*

Hardcover 372pp 0 85186 332 9
Price : £51.00 ($109.00) RSC Members £31.00

ROYAL SOCIETY OF CHEMISTRY

RSC Members should send their orders to:
The Membership Officer, The Royal Society of Chemistry, 30, Russell Square, London WC1B 5DT.

All other orders should be sent to:
The Royal Society of Chemistry, Distribution Centre, Blackhorse Road, Letchworth, Herts SG6 1HN.

Printed in Great Britain by Richard Clay (The Chaucer Press), Ltd., Bungay, Suffolk

C 20